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# Department of Local Affairs



*Strengthening Colorado Communities*

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**STATE HOUSING BOARD MEETING**  
**Department of Local Affairs**  
**Division of Housing**  
**1313 Sherman St., Denver, CO, Room 318**  
**Tuesday, June 9, 2009**

**AGENDA**

11:00am -1:00pm	Pre State Housing Board Working Session	
1:00 p.m.	Convene SHB Meeting - Approval of Minutes	Sally Hatcher
	Deputy Director's Comments	Teresa Duran

**Application Presentations**

<b><u>Time</u></b>	<b><u>Project #</u></b>	<b><u>Project Name and Applicant</u></b>	<b><u>Presenters</u></b>
1:15 pm	09-047	La Plata County VOA Elderly Housing II	Bill Whaley & Mandy De Mayo
1:30 p.m.	09-059	Thistle Communities Parkville Apartments Rehab	Denise Selders & Mary Roosevelt
1:45 pm	09-061	Longmont Housing Authority Aspen Meadows Neighborhood	Denise Selders & Michael Reis
2:00 pm	09-071	Colorado Coalition for the Homeless Renaissance Uptown Lofts Apartments	Rick Hanger & John Parvensky

**Approval Process**

2:15 p.m.	09-047	09-059	09-061	09-071
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**Other Business**

2:30 p.m.	Update on Codes Sections Resolution	Steve Bernia
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*Reasonable accommodation will be provided upon request for persons with disabilities. If you are a person with a disability who requires an accommodation to participate in this public meeting, please notify Julianna Nelson at (303) 866-5657 by June 8, 2009.*

cc:	Susan Kirkpatrick	CHATS	Teresa Duran	Tony Hernandez
	Rick Hanger	Lynn Shine	Steve Bernia	State Housing Board Members

# STATE HOUSING BOARD MINUTES

Colorado Division of Housing  
1313 Sherman St., Denver, CO, Room 318  
Tuesday, May 12, 2009

- BOARD MEMBERS PRESENT:** Theo Gregory, Sally Hatcher, Mike Rosser, Karen Weitkunat, Suzanne Anarde, and Gene Lucero
- BOARD MEMBERS ABSENT:** None
- DOH STAFF PRESENT:** Susan Kirkpatrick, Kathi Williams, Teresa Duran, Rick Hanger, Trang Van, Stephanie Troller, Shawn Wright, Melissa Stirdivant, Stephanie Morey and Julianna Nelson.
- CALL TO ORDER:** Meeting was called to order by Theo Gregory at 1:00 p.m.
- APPROVAL OF MINUTES:** Minutes from the April meeting were approved.

## DIRECTOR'S COMMENTS

Introduction of Julianna Nelson; she will replace Trang Van who was in charge of the logistics, notes, and technical guidance for the SHB meetings. Introduction of the new Asset Managers: Shawn Wright, Melissa Stirdivant and Stephine Troller.

Director Kathi Williams provided an update on Housing in the Legislative Session.

- Legislative session finished
  - HB 1213- passed it allows funds to rollover and extended funds for need assessments and foreclosure.
  - The bill was signed in a public meeting in Arvada by the Governor on May 9, 2009.
- American Economic Recovery Act/Homeless Prevention and Rapid Re-Housing Plan
  - May 18, 2009 HPRP plan due to HUD.
  - \$8.1 million for rental and utilities assistance for those facing homelessness and/or having a hard time stabilizing housing due to economy.
  - 3 indicating factors used unemployment, completed foreclosures and homelessness.
  - Metro Denver Homelessness Initiative, Pikes Peak and Balance of State (the Continuum of Care around homelessness issues recognized by HUD) used to find out what percentage of the monies will be going into each.
  - RFP to manage the distribution of funds is out and the draft can be found on the DOLA website.
- Public Hearing concerning NSP II
  - Attendance and interest is high.
  - Looking into hiring a grant writer for NSP II.
  - All the guidelines concerning NSP II are not in yet but are expected in approximately 2

weeks.

- Posted the Request for Grant Application on website for Minority Outreach
  - Hope to have response soon.
  - Kathi and Mike met with the Director of the Civil Rights Division.
  - Research has been done around the Colorado Foreclosure hotline to see if minorities are using this resource.
  - Minorities have been represented through this outreach method.

## APPLICATIONS REVIEWED IN MAY

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Rocky Mountain Community Land Trust  
El Paso County Scattered Site Homeownership Program

**Project Number:** 09-065

**Project Manager & Address:**

Mr. Robert Koenig Jr.  
Rocky Mountain Community Land Trust  
1212 West Colorado Ave.  
Colorado Springs, Colorado 80904  
(719) 447-9300 telephone  
(719) 329-0900 fax  
[rfkoenigjr@msn.com](mailto:rfkoenigjr@msn.com) email

**Property Address:** Various in El Paso County

**Project Description:** Rocky Mountain Community Land Trust (RMCLT) is requesting a grant of \$98,685 to support their on-going scattered-site homeownership program in Colorado Springs and El Paso County through September 30, 2009. These funds will be used to assist with the acquisition of nine (9) properties. Through the Community Land Trust model, the RMCLT acquires and holds title to the land permanently and grants to the homeowner use of the land investment via a 99-year land lease that can be renewed for an additional 99 years. The RMCLT connects with potential homebuyers through the Realtor community, the City of Colorado Springs acquisition/rehabilitation program, and new homebuilders.

**Staff Recommendation:** Full Funding

**Date of Meeting:** May 12, 2009

Anarde	Full Funding	Lucero	Full Funding
Gregory	Full Funding	Rosser	Full Funding
Hatcher	Full Funding	Weitkunat	Full Funding

**The Board approved Full Funding for this project.**

## OTHER BUSINESS

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- **Foreclosure Report/Update – Ryan McMaken**

- Number of completed foreclosures has declined.
- Number of opened foreclosures has increased.
- If unemployment continues to rise, foreclosures may increase.
- Foreclosure filings mean that a family/individual has become 3 months delinquent and in default.

- **Codes Update – Steve Bernia**

- Final rule is still unavailable a consensus is still trying to be found within the industry.
- Half prefer time period after 65% of state and local Jurisdiction.
- An option to adopt code of 2006 & 2009.
- Mold has become a huge issue. Bigger manufactures are producing indoors and should be fine.
- Alternative construction- significant work in the field is being done to make the homes safe and inhabitable. Manufacturers want to build and then ship to the work site.
- Looking at Pennsylvania's model.
- Would like to have issues resolved in the next couple of weeks and move forward.
- Can accept code with amendments. Amendments must be published with the rule in order to be adopted.

- **Funding cycles update- Rick Hanger**

- April started new cycles CHDO reviewed internally.
- May is the first Rental Development round- 7 applications received.
- The question was posed as to whether the Board wanted applicants who received "No Funding" to come forward.
- Board would like a summary of how staff determines recommendation- matrix- explanation of why recommendation was made.
- Time consuming issue that will be done in a pre-meeting discussion & lunch at June's board meeting.

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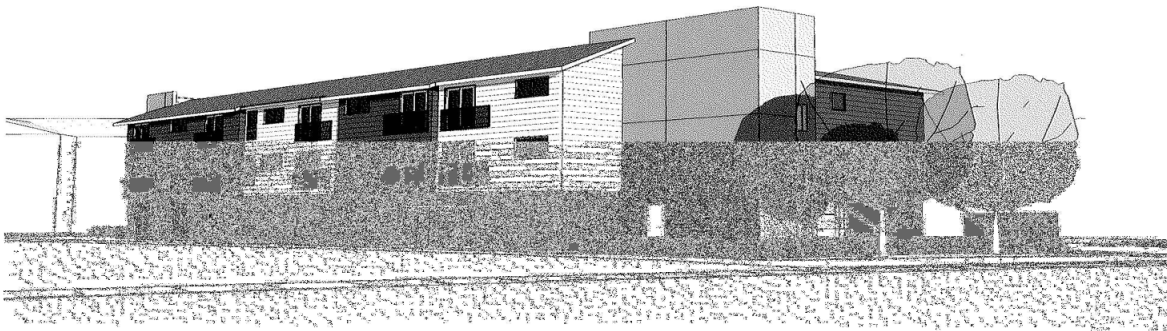
**The meeting adjourned at 2:40 pm**

**Name:** Volunteers of America (VOA)/La Plata County Regional Housing Alliance (RHA)/City of Durango

**Project Number:** 09-047      VOA/Elderly Housing II      3160A East Animas Village Dr., Durango, CO 81301

**Project Manager & Address:** Mandy De Mayo

De Mayo Associates  
4002 Pete's Path  
Austin, TX 78731  
(512) 454-1444 Fax (512) 454-1112  
[mandy@demayoassociates.com](mailto:mandy@demayoassociates.com)



VOA Durango, Colorado Phase II

**Project Description:** Volunteers of America, The La Plata County RHA, and the City of Durango are requesting a \$256,768 grant to construct 25 units of low-income elderly rental apartments in the City of Durango. The three-story structure will be funded primarily with a HUD 202 Capital Advance which operates as a 40 year loan which is forgiven at the end of the term and requires no payment. HUD 202 funds have been maximized and the project requires CDOH funding to fill the gap. The building will contain 24 one-bedroom 1 bath apartments which will be supplemented with a Project Rental assistance Contract from the HUD 202 program that will ensure that no resident pays more than 30% of their income in rent. Qualifying tenants will all be at or below 50% of Area Median Income. One two-bedroom unit will also be constructed to provide residence for an on-site manager. The development will be located on .98 acres adjacent to the phase I Cedar View Apartments, within two miles of the Durango Senior Center, and on a public transportation route.

Unit Type	Unit #	Beneficiaries' Income
<b><u>Affordable Units</u></b> (24) 1BR	24	≤ 50% of AMI (\$23,150 - \$26,500)
<b><u>Manager's Unit</u></b> (1) 2BR	1	
<b><u>Total Units</u></b>	25	

### PROGRAM BUDGET

Project Activities	Total Project Cost	State Funds Requested	Other Funds	Source	Status
Land Acquisition, MCI	\$100,000		\$100,000	HUD	Committed
Appr. Mkt. Study, Survey, Soils, Env. MCI	\$35,993		\$18,800	HUD	Committed
			\$17,193	VOA	Committed
Bldg. Permit, Tap Fees, Impact Fees	\$156,456		\$94,006	City of Durango	Committed
			\$62,450	HUD	Committed
On-Site Infrastructure	\$307,149	\$256,768	\$50,381	HUD 202	Committed
Construction	\$2,761,349		\$2,761,349	HUD 202	Committed
Contingency	\$108,554		\$108,554	HUD 202	Committed
Architect, Engineering	\$257,259		\$257,259	HUD 202	Committed
Const. Interest, Fees, Taxes, Ins.	\$27,224		\$27,224	HUD 202	Committed
Permanent Financing, Legal Costs	\$45,500		\$45,500	HUD 202	Committed
Developer's Fee	\$162,000		\$162,000	HUD 202	Committed
Marketing	\$7,462		\$7,462	HUD 202	Committed
Totals	\$3,968,946	\$256,768	\$3,712,178		

### PROJECT ASSESSMENT FOR Rental New Construction

Criteria	Project Data			DOH Range
Building Cost				
Cost/Unit/Sq. Ft.	\$158,758	/Unit	\$169 /SF	\$135 to \$205
Hard Cost/Unit/Sq. Ft.	\$133,340	/Unit	\$142 /SF	\$105 to \$160
Soft Cost/Unit/Sq. Ft.	\$21,418	/Unit	\$23 /SF	\$25 to \$40
Land Cost/unit	\$4,000	/Unit		\$10,000 to \$18,000
Hard/Soft Cost	86:14	Hard	Soft	
Cost Effectiveness Rating				
DOH subsidy/unit	\$10,699			\$4,000 to \$10,000
Annual Cost/Person & Rating	5	50 years		1 to 10 Scale
Externality Rating	8			1 to 10 Scale
Rent Savings Rating	6	34%		1 to 10 Scale
Financial Leveraging Rating	10	1:14		1 to 10 Scale

Composite Score	29	1 to 40 Scale
Operating Cost		
PUPA	\$5,270	\$3,700 to \$4,700
Annual Replacement Reserve	\$250	\$300 (\$250 for seniors)
Debt Coverage Ratio	N/A	1.10 to 1.20
Capitalized Operating Reserve	\$17,193	4 months debt & operating costs
Financial Commitments		
Terms of Primary Financing	N/A 0 years	
P.V. Tax Credits	N/A	\$.75 to .85
Other Criteria		
Fully Accessible Units	2 / 5 %	5% of Units Encouraged
Visitable Units	25 / 100 %, plus all common facilities	All units Encouraged
Energy-Efficiency Standard	HERS Rating 80	CDOH Energy Standards Policy
Water Efficient Landscape	Yes	Denver Water Board Recommendation
30% AMI Units	24/ 100 %	5% of Units Encouraged
CDOH Funding Eligibility	HOME, CDBG, HDG	
Action Plan Priority	Strategies 2 and 7	CDOH Action Plan Priority
Minimum Application Criteria	Yes	CDOH Application Minimum Criteria Policy
Housing Needs Assessment Supports Project	Yes	Local Housing Needs Assessment

## Comments:

### Management Capacity

Pro: VOANS is the development and management arm for Volunteers of America which also includes a Colorado chapter. VOANS currently owns and operates 4,000 units of affordable multi-family housing. They have previously received CDOH funds to build independent living for seniors in two locations in Montrose and at the adjacent Cedar View in Durango. The RHA is sponsoring the project which is identified as a part of the implementation strategy following the needs assessment for La Plata County. The City of Durango with the assistance of VOA/Durango, is passing CDBG funds through to VOANS for CDBG eligible costs. The City has CDBG management experience in the previous VOA/Durango Shelter project, similarly sponsored by the RHA as part of the strategic plan.

Con: None.

### Public/Private Commitment

Pro: The City of Durango, which does not have entitlement status to receive CDBG or HOME funds, is waiving \$94,006 in tap fees and land use fees. As part of the HUD 202 process, VOANS has made a \$17,193 capital investment that will remain in the project funding to cover any operating deficits.

Con: None.

### Market Demand

Pro: The La Plata County needs assessment indicated an immediate need for 255 rental units affordable to seniors at or below 50% AMI. Of 150 units of low-income senior housing in

Durango, occupancy is 100% with a one year waiting list for the adjacent Cedar View containing 30 units. Only 48 new units of new affordable senior rental housing have been built in this market since 2000. Vacancy levels have been around three percent for several years, with vacancy in subsidized projects at less than two percent.

Con: None

**Explain Variances from ranges** – Construction costs are high due to the location, which requires transportation costs to the mountain region, and high labor costs due to competition from neighboring resort communities. High hard costs reflect the higher cost of one bedroom units on a per square foot basis. HUD 202 projects cannot borrow additional funds to finance the project.

**Projects funded in La Plata County in the last year:** HSSW CHDO operating \$42,563

**County Area Median Income :** \$66,200

**Staff Recommendation:** Full Funding

**Date of Meeting:** June 9, 2009

Anarde		Lucero	
Gregory		Rosser	
Hatcher		Weitkunat	



# COLORADO DIVISION OF HOUSING \* HOUSING DEVELOPMENT ANALYSIS SPREADSHEET

Project Name: Durango VOA Elderly II

Spreadsheet directions are to the right --->

Date: 6/2/2009

PAGE #1

Applicant: City of Durango

Operating Proforma

Spreadsheet Version: Final

Required for Project Applications

STABILIZED FIRST YEAR INCOME						EXPENSES		
	% AMI	#of units	Sq. Ft.	Monthly Rent	Total Annual Rent	Administrative Expenses		
	50%	24	537	510	146,880	Management Fee	14,841	10.10%
		1	752	0	0	On-site Personnel Payroll	24,088	FTE
					0	Health Ins. & Benefits	5,845	
					0	Legal & Accounting		
					0	Advertising	500	
					0	Office Supplies		
					0	Telephone		
					0	Audit		
					0	Other		
					0	Total Administrative Expenses	45,274	30.82%
					0	Operating Expenses		
					0	Utilities (owner paid)	28,035	
					0	Trash Removal	2,275	
					0	Fire & Liability Insurance	15,500	
					0	Other	14,800	
					0	Total Operating Expenses	60,610	
	Total units	25	Total Rent Income		146,880	Maintenance		
	Total sq ft	13,640				Maintenance	2,200	
			Parking Income			Repairs	8,475	
			Laundry Income			Grounds (inc. snow removal)	1,200	
			Other Income			Other		
			Total Income		146,880	Total Maintenance	11,875	
	Vac. Rate	0.05	Less Vacancy		-7,344	Real Estate Taxes		
			Effective Gross Income		139,536	Operating Reserve	13,986	unit avg.= 559
						Replacement Reserve		unit avg.= 0
			DEBT SERVICE			TOTAL ANNUAL EXPENSES	131,745	
			1st Mortgage		0	NET OPERATING INCOME	7,791	
			2nd Mortgage		0	P.U.P.A. Expenses *	5,270	
			3rd Mortgage		0			
			TOTAL DEBT SERVICE		0			
	BEP	89.70%	Poss D/S @ 1.1 DCR		7,083	*Note:		
			Project Debt Coverage Ratio		#DIV/0!			

BEP = Break Even Point

Poss D/S @ 1.1 DCR = Possible Debt Service at a 1.1 Debt Coverage Ratio

\* P.U.P.A = Per Unit Per Annum Expenses

**Name:** Thistle Communities – Parkville Apts. Rehab

**Project Number:** 09-059

**Project Manager & Address:** Mary D. Roosevelt  
CEO  
Thistle Communities  
1845 Folsom Street  
Boulder, CO 80302  
Telephone: 303-443-0007, Ext. 113  
Fax: 303-443-0098  
Email: [mroosevelt@thistlecommunities.org](mailto:mroosevelt@thistlecommunities.org)

**Project Photo:**



**Project Address:** 1050 16<sup>th</sup> Street, Longmont, Colorado 80501

**Project Description:** Thistle Communities is requesting a grant of \$40,000 for the rehabilitation of the Parkville Apartments in Longmont, Boulder County. Parkville is a garden-style community built in 1978 consisting of 6 buildings containing 45 1-bedroom and 30 2-bedroom units affordable to households at or below 50% AMI and 1 2-bedroom unit at market rate for a total of 76 units. CDOH provided an HDG grant of \$200,000 to assist with acquisition of the property in 1999. In 2004, Thistle completed a portfolio bond refinancing for the property and completed Phase 1 of a rehabilitation plan which included new roofing, insulation, painting and some HVAC system rehab. CDOH did not provide additional funds at that time. This request is for Phase 2 of the rehab plan and will consist of additional HVAC replacement, fencing, parking lot replacement and lighting repairs. These repairs are necessary to preserve the 75 permanently affordable rental units that serve very low-income families.

### AFFORDABILITY

<u>Type of Units</u>	<u># of Units</u>	<u>Income of Beneficiaries</u> (4-person households in Boulder)
<u>CDOH HOME-Assisted Units</u> (1) 1BR	1	≤ 50% of AMI (\$44,550)
<u>Other Affordable Units</u> (44) 1BR,(30) 2BR	74	≤ 50% of AMI (\$44,550)
<u>Market Rate Units</u> (1) 2BR	1	Unrestricted
<u>Total Units</u>	76	

### PROJECT BUDGET

Project Activities	Total Project Cost	State Funds Requested	Other Funds	Source	Status
Existing Buildings and Land Value	5,247,800		200,000 53,000 2,780,000 2,067,110	Colorado Division of Housing Grant City of Longmont Affordable Housing Fund Loan Bond Financing Thistle Equity	All Previously Funded
Phase I Rehabilitation	150,000		150,000	City of Longmont 2004 CDBG Grant	Previously Funded
Bath Fans / Ventilation	40,000		40,000	City of Longmont 2009 CDBG Grant	Committed
Grade & Repave West Parking Lot	43,000	40,000	3,000	Thistle Replacement Reserves	Committed
Parking Lot Lighting	4,000		4,000	Thistle Replacement Reserves	Funds permitting
Fence for Pool	16,000		16,000	Thistle Replacement Reserves	Funds permitting
Replace 4 Boilers & Sidearm Water Heaters	128,000		128,000	Governor's Energy Office	Pending
Project Management	2,310		2,310	Thistle	Committed
Totals	5,418,110	40,000	5,441,110		

### PROJECT ASSESSMENT FOR Rental Rehab

Criteria	Project Data				DOH Range
Building Cost					
Cost/Unit/Sq. Ft.	\$72,120	/Unit	\$107	/SF	\$100 to \$140
Hard Cost/Unit/Sq. Ft.	\$72,089	/Unit	\$107	/SF	\$90 to \$120
Soft Cost/Unit/Sq. Ft.	\$ 30	/Unit	\$0	/SF	\$10 to \$20
Hard/Soft Cost	100%	Hard	0%	Soft	
Cost Effectiveness Rating					
DOH subsidy/unit	\$526				\$2,000 to \$10,000
Annual Cost/Person Rating	\$854	7	40	yrs	1 to 10 Scale
Externality Rating		6			1 to 10 Scale
Rent Savings Rating		10			1 to 10 Scale
Financial Leveraging Rating		10			1 to 10 Scale
Composite Score		33			1 to 40 Scale
Operating Cost					
PUPA	\$3,832				\$3,700 to \$4,700
Annual Replacement Reserve	\$300				\$300
Debt Coverage Ratio	1.10				1.10 to 1.20
Capitalized Operating Reserve	0				4 months debt & operating costs
Financial Commitments					
Terms of Primary Financing	5.43%	15	years		Bond Financing
P.V. Tax Credits	n/a				\$.75 to .85
Other Criteria					
Fully Accessible Units	None planned				5% of Units Encouraged
Visitable Units	29 ground floor units				All units Encouraged
Energy-Efficiency Standard	New boilers, water heaters, and bath fans are all Energy Star rated.				CDOH Energy Standards Policy
Water Efficient Landscape	Existing landscaping				Denver Water Board Recommendation
30% AMI Units	None				5% of Units Encouraged
DOH requirements					
Priority	High - Preservation of Existing Affordable Rental Housing				CDOH Action Plan Goals
CDOH Funding Eligibility	HOME, HDG				
Minimum Application Criteria	Yes				CDOH Application Minimum Criteria Policy
Housing Needs Assessment Supports Project	Yes – Boulder County Housing Needs Assessment completed in 2005.				Local Housing Needs Assessment

**Comments:**

- **Management Capacity**

***Pro:***

1. Thistle Communities (TC) is a 501(c)(3) non-profit CHDO organization serving Boulder and Adams Counties. Thistle was incorporated in 1985. In 2002, Thistle was chartered as a NeighborWorks America organization. Thistle currently owns and manages 785 rental units in Boulder, Longmont, and Thornton. The Longmont rental portfolio contains a total of 226 units, of which 76 are located at Parkville Apartments. Thistle also manages 215 homes in its Community Land Trust portfolio.
2. Thistle has recently completed the renovation of 94 rental units at the historic Cannery Apartments in Longmont and the renovation of 70 rental units at the Fairways Apartments in Boulder.
3. Mary Roosevelt, CEO of Thistle Communities, has made significant changes in the operation of the organization in the past two years. She has reduced operating costs by 21%. The organization's primary focus is on rental portfolio stabilization and preservation rather than growth and development.

***Con:***

1. Thistle's 2008 audited financial statement states that the organization has "thin liquidity" and that "the financial statements continue to be prepared on the going concern basis."

- **Public/Private Commitment**

***Pro:***

1. When Thistle acquired Parkville in 1999, it received a \$53,000 Affordable Housing Loan from the City of Longmont and a \$200,000 HDG grant from CDOH. In 2003, Parkville received a \$150,000 CDBG grant from the City of Longmont for Phase 1 of the Rehabilitation Plan. In 2004, Thistle refinanced the property with a portfolio bond loan with US Bank at 5.43% interest.
2. As part of Phase 2 of the Rehabilitation Plan, Thistle is receiving a CDBG grant of \$40,000 from the City of Longmont for bath fans and ventilation of the units. Thistle is requesting a grant from CDOH for grading and repaving of the west parking lot.
3. Thistle has applied for a grant of \$128,000 from the Governor's Energy Office for the replacement of 3 boilers and sidearm water heaters. This request has been committed to verbally.

***Con:***

1. Additional rehab work is needed at Parkville. However, the City of Longmont receives limited CDBG funds and is not able to provide greater local match for CDOH funds.

- **Market Demand**

***Pro:***

1. The City of Longmont's Comprehensive Plan has identified the need for very low- and extremely low-income rental housing. Parkville Apartments provides 75 units of rental housing to very low-income households earning below 50% AMI.
2. Thistle recently surveyed the 76 existing residents at Parkville. 47% of the 68 residents responding to the survey had incomes below 30% AMI.
3. The Boulder/Broomfield affordable vacancy rate for 3<sup>rd</sup> Quarter 2008 was 3.9%.

***Con:***

1. Although the turnover rate for the property is currently 53%, this has been decreasing since the end of 2008. Overall occupancy of the property has been strong at 94 – 95%.

**Explain Variances from ranges:**

- None.

**Other projects funded in Boulder County since 5/08:**

- 4/09 – Imagine!, Longmont SmartHome, grant \$90,000
- 3/09 – Boulder County HA, Longs Peak Energy Conservation, grant \$250,000
- 12/08 – Thistle Community Housing, CHDO Operating, grant \$16,000
- 5/08 – Thistle Community Housing, Cannery Apts., grant \$750,000

**Other projects funded for Thistle Communities since 5/08:**

- 12/08 – Thistle Community Housing, CHDO Operating, grant \$16,000
- 5/08 – Thistle Community Housing, Cannery Apts., grant \$750,000

**Boulder County AMI:** \$89,100**Staff Recommendation:** Full funding plus \$20,000 to maintain  
project replacement reserves

Date of Meeting: 6/9/09

Anarde		vacant	
Gregory		Rosser	
Hatcher		Lucero	
Weitkunat			

# COLORADO DIVISION OF HOUSING \* HOUSING DEVELOPMENT ANALYSIS SPREADSHEET

Project Name: Parkville Rehab

Spreadsheet directions are to the right --->

Date: 6/1/2009

PAGE #1

Applicant: Thistle Communities

Operating Proforma

Spreadsheet Version: SHB Packet

Required for Project Applications

STABILIZED FIRST YEAR INCOME						EXPENSES		
	% AMI	#of units	Sq. Ft.	Monthly Rent	Total Annual Rent	Administrative Expenses		
1bd,1ba	50%	15	550	505	90,900	Management Fee	24,446	4.73%
1bd,1ba	50%	15	550	510	91,800	On-site Personnel Payroll	94,045	3.50% FTE
1bd,1ba	50%	15	550	530	95,400	Health Ins. & Benefits	8,136	
2bd,1ba	50%	10	858	610	73,200	Legal & Accounting	7,950	
2bd,1ba	50%	10	858	630	75,600	Advertising	3,000	
2bd,1ba	50%	10	858	675	81,000	Office Supplies	2,225	
					0	Telephone	0	
2bd,1ba	Market	1	750	750	9,000	Audit	0	
					0	Other	6,872	
					0	Total Administrative Expenses	146,674	28.38%
					0	Operating Expenses		
					0	Utilities (owner paid)	42,212	
					0	Trash Removal	6,864	
					0	Fire & Liability Insurance	11,142	
					0	Other		
					0	Total Operating Expenses	60,218	
Total units		76	Total Rent Income		516,900	Maintenance		
Total sq ft		51,240				Maintenance	14,270	
			Parking Income		0	Repairs	14,400	
			Laundry Income		12,394	Grounds (inc. snow removal)	5,050	
			Other Income		43,304	Other	1,100	
			Total Income		572,598	Total Maintenance	34,820	
Vac. Rate		0.07	Less Vacancy		-40,082	Real Estate Taxes	27,056	
			Effective Gross Income		532,516	Operating Reserve		unit avg.= 0
						Replacement Reserve	22,500	unit avg.= 296
			DEBT SERVICE			TOTAL ANNUAL EXPENSES	291,268	
			1st Mortgage		(214,414)	NET OPERATING INCOME	241,248	
			2nd Mortgage		(4,958)	P.U.P.A. Expenses *	3,832	
			3rd Mortgage		0	* P.U.P.A = Per Unit Per Annum Expenses		
			TOTAL DEBT SERVICE		(219,372)			
BEP		98.79%	Poss D/S @ 1.1 DCR		219,316	*Note:		
			Project Debt Coverage Ratio		1.100			

BEP = Break Even Point

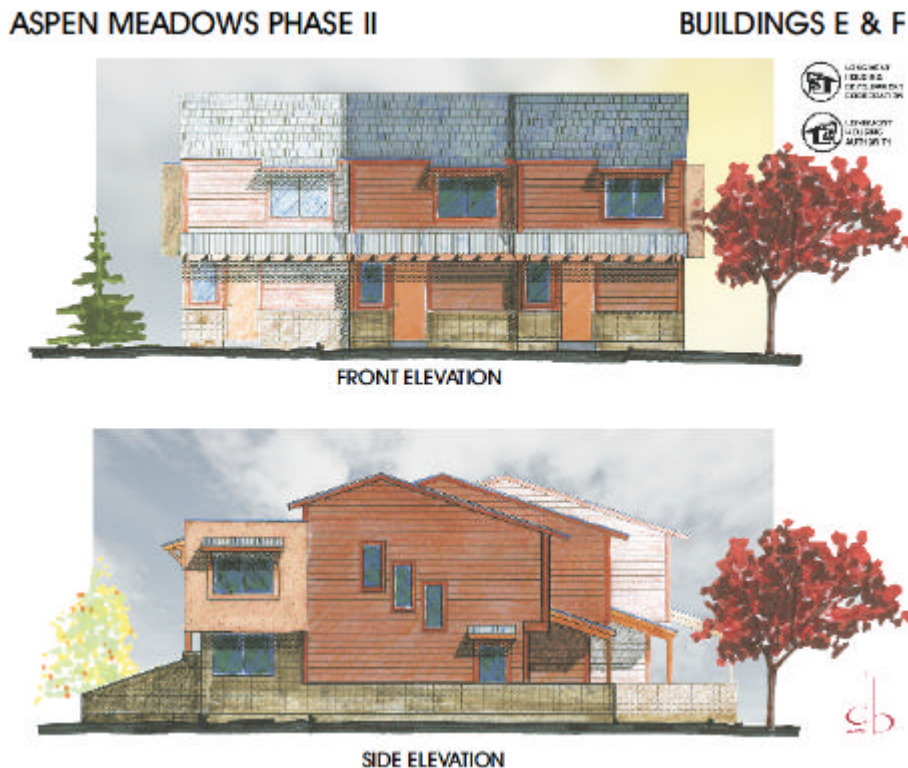
Poss D/S @ 1.1 DCR = Possible Debt Service at a 1.1 Debt Coverage Ratio

**Name:** Longmont Housing Authority  
Aspen Meadows Neighborhood, Phase 2

Project Number: 09-061

**Project Manager & Address:** Michael Reis  
Executive Director  
Longmont Housing Authority  
1228 Main Street  
Longmont, CO 80501  
Telephone: 303-651-8581, Ext. 25  
Fax: 303-682-2899  
Email: [Michael@longmontha.com](mailto:Michael@longmontha.com)

**Project Photo:**



**Project Address:** 50 21<sup>st</sup> Avenue, Longmont, CO 80501

**Project Description:** The Longmont Housing Authority (LHA) is requesting a grant of \$250,000 to assist in repayment of a loan to First Main Street Bank for the acquisition of the land for this project. LHA acquired 4 acres of land in 1999 and sold the western 2 acres to Aspen Meadows Associates, LLLP for a senior housing complex. The remaining 2 acres is the site for the Aspen Meadows Neighborhood (AMN), Phase 2 (subject project), which is located at 50 21<sup>st</sup> Avenue, in northeast Longmont, Boulder County. AMN is a townhome-style new construction project consisting of 28 units of rental housing, two 2-bedroom units at 30% AMI, eighteen 2-bedroom units at 40% AMI, six 3-bedroom units at 40% AMI, and two 4-bedroom units at 40% AMI. This project received 9% Low Income Housing Tax Credits from CHFA in Round 1 of 2009. LHA will project base twelve Section 8 vouchers at this property.



### AFFORDABILITY

<u>Type of Units</u>	<u># of Units</u>	<u>Income of Beneficiaries</u> (4-person households in Boulder)
<u>CDOH HOME-Assisted Units</u> (2) 2BR	2	≤ 40% of AMI (\$35,640)
<u>Other Affordable Units</u> (2) 2BR (16) 2BR, (6) 3BR, (2) 4BR	2 24	≤ 30% of AMI (\$26,730) ≤ 40% of AMI (\$35,640)
<u>Total Units</u>	<u>28</u>	

### PROJECT BUDGET

Project Activities	Total Project Cost	State Funds Requested	Other Funds	Source	Status
Land Acquisition Costs	\$347,500	\$250,000	\$97,500	St. John's Foundation (SJF)	Committed
Building Permits, Tap Fees	\$452,085		\$218,056	City of Longmont (COL) Fee Reduction	Committed
			\$234,029	1stBank Loan	Committed
Infrastructure Costs	\$150,000		\$50,000	Federal Home Loan Bank AHP	Pending
			\$75,000	COL HOME grant (2009)	Committed
			\$25,000	COL Affordable Housing Funds	Committed
Construction Costs	\$4,389,964		\$3,817,764	1stBank Loan & LIHTC Equity	Committed
			\$100,000	COL HOME grant (2008)	Committed
			\$300,000	Longmont Housing Authority (LHA) Equity	Committed
			\$172,200	Longmont Housing Development Corp. Loan	Committed
Contingency	\$189,411		\$189,411	1stBank Loan	Committed
Architectural & Engineering	\$285,464		\$285,464	SJF	Committed
Interim Costs	\$340,752		\$117,036	SJF	Committed
			\$223,716	1stBank Loan	Committed
Permanent Financing Costs	\$165,200		\$165,200	LIHTC	Committed
Operating & Debt Service Reserve	\$70,000		\$70,000	LIHTC	Committed
Developer's Fee	\$663,000		\$633,000	LIHTC	Committed
Deferred Developer's Fee	\$153,000		\$153,000	LHA	Committed
Totals	\$7,206,376	\$250,000	\$6,956,376		

### PROJECT ASSESSMENT FOR Rental New Construction

Criteria	Project Data			DOH Range
Building Cost				
Cost/Unit/Sq. Ft.	\$247,371	/Unit	\$205 /SF	\$135 to \$205
Hard Cost/Unit/Sq. Ft.	\$184,927	/Unit	\$147 /SF	\$105 to \$160
Soft Cost/Unit/Sq. Ft.	\$ 61,122	/Unit	\$49 /SF	\$25 to \$40
Land Cost/unit	\$ 11,321	/Unit		\$10,000 to \$18,000
Hard/Soft Cost	75% Hard	25% Soft		
Cost Effectiveness Rating				
DOH subsidy/unit	\$8,929			\$4,000 to \$10,000
Annual Cost/Person & Rating	\$1,815	5	40 years	1 to 10 Scale
Externality Rating		6		1 to 10 Scale
Rent Savings Rating	53%	10		1 to 10 Scale
Financial Leveraging Rating	28	10		1 to 10 Scale
Composite Score		31		1 to 40 Scale
Operating Cost				
PUPA	\$4,110			\$3,700 to \$4,700
Annual Replacement Reserve	\$300			\$300 (\$250 for seniors)
Debt Coverage Ratio	1.15			1.10 to 1.20
Capitalized Operating Reserve	\$70,000	4 mos		4 months debt & operating costs
Financial Commitments				
Terms of Primary Financing	7.5% Const to Perm Loan	20 years	1stBank	
P.V. Tax Credits	\$ .75		1stBank	\$.75 to .85
Other Criteria				
Fully Accessible Units	2 / 7%			5% of Units Encouraged
Visitable Units	3 – 6 units			All units Encouraged
Energy-Efficiency Standard	Enterprise Green Communities and CHFA Energy Efficiency Standards			CDOH Energy Standards Policy
Water Efficient Landscape	Yes			Denver Water Board Recommendation
30% AMI Units	2 / 7%			5% of Units Encouraged
DOH requirements				
Priority	High - Increase the supply of affordable rental housing			CDOH Action Plan Goals
CDOH Funding Eligibility	HOME, HDG			
Minimum Application Criteria	Yes			CDOH Application Minimum Criteria Policy
Housing Needs Assessment Supports Project	Yes – Boulder County Housing Needs Assessment completed in 2005.			Local Housing Needs Assessment

**Comments:**

- **Management Capacity**

*Pro:*

1. LHA has been serving low to moderate income families and seniors in Longmont since its inception in 1975. LHA owns, is part of the partnership, or oversees LHDC units totaling 203 units in 8 properties. Hudson Properties provides property management to all units except three single family houses and the ten Briarwood units which LHA manages.
2. Michael Reis has been with LHA since 2003 as the Development Director, and since 2007 as the Executive Director. Prior to that, he was the Development Director for the Boulder County Housing Authority/Louisville Housing Authority for 13 years. LHA has contracted with Sarah Batt, Housing Consultant, to assist them in obtaining funding for this project. Sarah has extensive experience in working with affordable housing projects.
3. LHA has successfully completed several new construction projects. The Aspen Meadows Apartments (senior housing) was built on the adjoining site in 2002. The Longmont Housing Development Corporation (a non-profit subsidiary of LHA) is completing construction of the Lodge at Hover Crossing, another senior rental housing project for which CDOH provided funding.

*Con:* None.

- **Public/Private Commitment**

*Pro:*

1. The City of Longmont provided LHA with a HOME pre-development grant of \$100,000 for AMN in 2008. It also approved HOME funding of \$75,000 and an Affordable Housing Fund grant of \$25,000 in 2009 for infrastructure costs. The City has also agreed to waive approximately \$218,056 in permit and tap fees (roughly 50% of the cost) for this project according to its Fee Reduction Program for affordable housing.
2. LHA received a grant of \$500,000 from the St. John's Foundation for use in providing permanently affordable rental housing to families at or below 50% AMI in Longmont. LHA applied for a grant of \$150,000 from the Federal Home Loan Bank AHP on May 1, 2009. The award decision will not be made until August 2009.
3. AMN received an allocation of 9% Low Income Housing Tax Credits from CHFA in Round One of 2009. 1stBank of Longmont has issued a Letter of Understanding for the purchase of the tax credits based on a price of \$.75 on the dollar. LHA has paid a \$15,000 reservation fee for that commitment.

*Con:* None.

- **Market Demand**

*Pro:*

1. A Market Study was prepared by Prior & Associates in January of 2009. It states that most of the existing affordable rental housing inventory targets households at 50% and 60% AMI, suggesting that households at 30% and 40% AMI are underserved. It projects a capture rate of 10.6% and 19.9% respectively. AMN's proposed 40% AMI rents are 18% to 25% lower than the surveyed weighted average market-rate rents. The study predicts full lease up of the property in approximately 4 months and once occupied, predicts a stabilized occupancy rate of 93%.
2. These units will be built to the Enterprise Green Communities standards and will provide Energy Star rated appliances which will reduce tenants' utility costs. Additionally, LHA will provide supportive services to AMN residents through a staff member acting as a Family Resource Coordinator. Residents will have access to the community room at the Aspen Meadows Apartments next door and will share an on-site manager.
3. The 3<sup>rd</sup> quarter 2008 vacancy rate for market rate units in Boulder/Broomfield County is 4.4% and for affordable units it is 3.9%.

*Con:* None.

**Explain Variances from ranges:**

- The Soft Cost/Unit/Sq. Ft. is higher than the DOH range due to the high cost of low-income tax credit projects and the small size of this project with only 28 units.

**Other projects funded in Boulder County since 5/08:**

- 4/09 – Imagine!, Longmont SmartHome, grant \$90,000
- 3/09 – Boulder County HA, Longs Peak Energy Conservation, grant \$250,000
- 12/08 – Thistle Community Housing, CHDO Operating, grant \$16,000
- 5/08 – Thistle Community Housing, Cannery Apts., grant \$750,000

**Other projects funded for Longmont Housing Authority since 5/08:**

- None

**Boulder County AMI:** \$89,100

**Staff Recommendation:** Full Funding

Date of Meeting: 6/9/09

Anarde		vacant	
Gregory		Rosser	
Hatcher		Lucero	
Weitkunat			

# COLORADO DIVISION OF HOUSING \* HOUSING DEVELOPMENT ANALYSIS SPREADSHEET

**Project Name:** Aspen Meadows Neighborhood Spreadsheet directions are to the right --->  
**Date:** 6/2/2009 **PAGE #1**  
**Applicant:** Longmont Housing Authc Operating Proforma  
**Spreadsheet Version:** SHB Packet **Required for Project Applications**

STABILIZED FIRST YEAR INCOME						EXPENSES		
	% AMI	#of units	Sq. Ft.	Monthly Rent	Total Annual Rent	Administrative Expenses		
2bd/1ba	30%	2	987	510	12,240	Management Fee	11,288	4.65%
2bd/2ba	40%	6	1058	705	50,760	On-site Personnel Payroll	13,000	FTE
2bd/1ba	40%	12	1115	705	101,520	Health Ins. & Benefits	3,000	
3bd/2ba	40%	6	1400	790	56,880	Legal & Accounting	8,500	
4bd/2ba	40%	2	1500	890	21,360	Advertising	2,333	
					0	Office Supplies	1,500	
					0	Telephone	2,500	
					0	Audit		
					0	Other		
					0	Total Administrative Expenses	42,121	17.35%
					0	Operating Expenses		
					0	Utilities (owner paid)	35,000	
					0	Trash Removal	3,265	
					0	Fire & Liability Insurance	5,304	
					0	Other		
					0	Total Operating Expenses	43,569	
	Total units	28	Total Rent Income		242,760	Maintenance		
	Total sq ft	33,102				Maintenance	16,243	
			Parking Income		0	Repairs	2,500	
			Laundry Income		0	Grounds (inc. snow removal)	1,500	
			Other Income		0	Extermination	750	
			Total Income		242,760	Total Maintenance	20,993	
	Vac. Rate	0.07	Less Vacancy		-16,993	Real Estate Taxes		
	Effective Gross Income				225,767	Operating Reserve	0	unit avg.= 0
						Replacement Reserve	8,400	unit avg.= 300
DEBT SERVICE						TOTAL ANNUAL EXPENSES	115,083	
1st Mortgage					(96,657)	NET OPERATING INCOME	110,684	
2nd Mortgage					0	P.U.P.A. Expenses *	4,110	
3rd Mortgage					0	* P.U.P.A = Per Unit Per Annum Expenses		
TOTAL DEBT SERVICE					(96,657)			
	BEP	87.22%	Poss D/S @ 1.1 DCR		100,622	*Note:		
BEP = Break Even Point		Project Debt Coverage Ratio		1.15				

**Name:** Renaissance Housing Development Corporation – Renaissance Uptown Lofts Apartments

**Project Number:** 09-071

**Project Manager & Address:** Mr. David Klimut  
Director, Housing Development  
Renaissance Housing Development Corporation  
2111 Champa Street  
Denver, Colorado 80205  
303.285.5232 telephone  
303.293.2309 fax  
[dklimut@coloradocoalition.org](mailto:dklimut@coloradocoalition.org)

**Project Photos:**



**Project Address:** 517 East Colfax Denver, Colorado 80205

**Project Description:**

The Renaissance Housing Development Corporation (RHDC), a community housing development organization (CHDO) and development subsidiary of the Colorado Coalition for the Homeless (CCH), requests a grant of \$1,000,000 for the new construction of the Renaissance Uptown Lofts, a 98 unit, mixed-income, transit oriented affordable housing development located at 517 East Colfax Avenue in Denver, Colorado. The project will integrate housing provided through the Denver Housing First Collaborative and other Colorado Coalition for the Homeless (CCH) service programs to meet a variety of community needs. The Denver Housing First Collaborative is designed to create a comprehensive and integrated strategy to assist persons who are chronically homeless to move from the streets and shelters into stable, permanent housing and receive the services required to achieve greater self-sufficiency. This new construction project will incorporate several façade elements from the existing building and will include street level retail and parking elements with the residential development to be constructed above the ground floor podium structure.

## AFFORDABILITY

<u>Type of Units</u>	<u># of Units</u>	<u>Income of Beneficiaries</u> (4-person households in Denver Metro)
<u>CDOH HOME-Assisted Units</u> (1) 0BR, (7) 1BR	8	≤ 30% of AMI (\$21,500)
<u>Other Affordable Units</u> (2) 0BR, (33) 1BR	35	≤ 30% of AMI (\$21,500)
(29) 1BR, (1) 2BR	30	≤ 40% of AMI (\$28,680)
(15) 1BR, (1) 2BR	16	≤ 50% of AMI (\$35,850)
(7) 1BR, (1) 2BR	8	≤ 60% of AMI (\$43,020)
<u>Employee (1) &amp; Market Rate Units (0)</u> (1) 2BR	1	unrestricted
<u>Total Units</u>	98	

## Project Budget:

Project Activities	Total Project Cost	State Funds Requested	Other Funds	Source	Status
Acquisition	\$2,200,000	\$1,000,000	\$1,200,000	Denver HNDS	Pending
Appraisal & Market Study	\$17,000		\$17,000	Tax Credit Equity	Committed
Architect/Engineering	\$611,504		\$611,504	Tax Credit Equity	Committed
Building Permit & Tap Fees	\$150,000		\$150,000	Tax Credit Equity	Committed
Construction	\$11,299,816		\$800,000	Denver HNDS	Pending
			\$4,186,316	Tax Credit Equity	Committed
			\$1,500,000	First Mortgage	Pending
			\$3,963,500	CHFA ARRA (TCAP)	Pending
			\$400,000	HUD Supportive Housing	Committed
			\$450,000	Federal Home Loan Bank AHP	Committed
Contingency	\$758,014		\$758,014	Tax Credit Equity	Committed
Construction Loan Expenses	\$458,750		\$458,750	Tax Credit Equity	Committed
Perm Loan Expenses	\$140,500		\$140,500	Tax Credit Equity	Committed
Operating Reserve	\$300,000		\$300,000	Tax Credit Equity	Committed
Developers Fee	\$1,000,000		\$882,539	Tax Credit Equity	Committed
			\$117,461	Deferred Fee	Committed
Other	\$931,877		\$931,877	Tax Credit Equity	Committed
Totals	\$17,867,461	\$1,000,000	\$16,867,461		

### PROJECT ASSESSMENT FOR Rental New Construction

Criteria	Project Data		DOH Range
Building Cost			
Cost/Unit/Sq. Ft.	\$182,321 /Unit	\$215 /SF	\$135 to \$205
Hard Cost/Unit/Sq. Ft.	\$132,404 /Unit	\$156 /SF	\$105 to \$160
Soft Cost/Unit/Sq. Ft.	\$27,468 /Unit	\$ 33 /SF	\$25 to \$40
Land Cost/unit	\$22,449 /Unit		\$10,000 to \$18,000
Hard/Soft Cost	83% Hard	17% Soft	
Cost Effectiveness Rating			
DOH subsidy/unit	\$10,205		\$4,000 to \$10,000
Annual Cost/Person & Rating	3	50 years	1 to 10 Scale
Externality Rating	6		1 to 10 Scale
Rent Savings Rating	4		1 to 10 Scale
Financial Leveraging Rating	10		1 to 10 Scale
Composite Score	23		1 to 40 Scale
Operating Cost			
PUPA	\$4,911		\$3,700 to \$4,700
Annual Replacement Reserve	\$300		\$300 (\$250 for seniors)
Debt Coverage Ratio	1.53		1.10 to 1.20
Capitalized Operating Reserve	6 months		4 months debt & operating costs
Financial Commitments			
Terms of Primary Financing	6.0%, 30 Years, \$1,500,000		
P.V. Tax Credits	.675		\$.75 to .85
Other Criteria			
Fully Accessible Units	5 / 5.1%		5% of Units Encouraged
Visitable Units	98		All units Encouraged
Energy-Efficiency Standard	Enterprise Green Communities (2008)		CDOH Energy Standards Policy
Water Efficient Landscape	No Landscaping planned		Denver Water Board Recommendation
30% AMI Units	43 / 44%		5% of Units Encouraged
DOH requirements			
Priority	High - Increase Supply of Rental Housing		CDOH Action Plan Goals
CDOH Funding Eligibility	HOME, HDG		
Minimum Application Criteria	No – incomplete supporting documents		CDOH Application Minimum Criteria Policy
Housing Needs Assessment Supports Project	Yes		Local Housing Needs Assessment



**Comments:**

- **Management Capacity**

*Pro:*

1. RHDC and CCH have developed over 1,300 units of transitional and supportive affordable housing in the Denver Metro area and have assisted statewide in providing supportive housing services.
2. CCH currently operates numerous programs with demonstrated success including health care; mental health services; substance abuse treatment and counseling; tenant based rental assistance, affordable housing development; case management; emergency services; early childhood education and childcare; benefits advocacy; transportation; and vocational services. These programs, designed to create conduits to self-sufficiency, provide a continuum of services for homeless and low-income, at-risk individuals and families while filling gaps in the local infrastructure.

*Con:*

1. This application was accepted by DOLA/CDOH after the 1<sup>st</sup> of the month (application documents dated May 20, 2009) and did not include the supporting documentation.
2. DOLA/CDOH asset management staff completed a monitoring of the CCH operated housing voucher program in May 2009 and found outstanding management and program findings. The monitoring letter for this visit has not been completed to date.

- **Public/Private Commitment**

*Pro:*

1. The Denver Housing Authority has committed 50 Section 8, Project-based Vouchers to this project and the project has also received a HUD Supportive Housing Grant for project costs and long-term operating costs.
2. This project is a partnership with the Denver Housing First Collaborative that includes the Colorado Coalition for the Homeless, Mental Health Corporation of Colorado, Arapahoe House, Denver Health, Denver Department of Human Services and the Denver VA Medical Center.

*Con:*

1. Approximately \$6,400,000 (or 36% of the budget) from various funding sources is still pending at this time from various sources. These financial commitments are expected to be finalized within 90 days of the State Housing Board approval.

- **Market Demand**

*Pro:*

1. According to the Gaps Analysis undertaken by the Metro Denver Homeless Initiative in 2006 there was an unmet “point in time” need for permanent and transitional housing for 794 homeless individuals, including 513 chronically homeless individuals.
2. There is a significant waiting list for public and assisted housing in Denver with an average waiting list time of over 2 years for service enriched housing and housing vouchers.

**Con:**

1. The marketability of the retail space in this project (approximately 7,700 square feet) will be challenging in the current market for space along East Colfax. CCH is considering using this space for their own uses to minimize the market risks for this component of the project. No income from the retail space is projected in the operating budget.
2. The 3<sup>rd</sup> quarter 2008 Vacancy Survey for deed-restricted units in Denver County found a 4.3% vacancy rate and the 1<sup>st</sup> quarter 2009 Vacancy Survey for the overall rental in Denver County found an 8.6% vacancy rate.

**Explain Variances from ranges:**

- The PUPA is above the range due to the amount of on-site staffing necessary for successful property management.
- The Debt Coverage Ratio is 1.53 in year one of the project budget analysis and is above the CDOH range. This year one debt coverage ratio is necessary to maintain at least a 1.15 debt coverage ratio in year 15 of operations as required by the tax credit program.
- Total cost per square foot is above the CDOH range and is due primarily to the cost of the land (and in-fill site) and the construction techniques necessary to meet on-site parking requirements.

**Other projects funded in Denver County since 5/09:**

- Denver Housing Authority – Park Avenue Block 4B - \$705,500 grant 5/08
- Volunteers of America, Casa de Rosal - \$450,000 grant 2/09
- Mercy Housing Colorado, Aromor Apartments - \$567,500 grant 2/09

**Other projects funded for Renaissance Housing Development Corporation since 5/09:**

- None.

**Denver County AMI:** \$71,700

**Staff Recommendation:** No funding at this time - review for final gap determination and project compliance

**Date of Meeting:** June 9, 2009

Anarde		vacant	
Gregory		Rosser	
Hatcher		Lucero	
Weitkunat			

# COLORADO DIVISION OF HOUSING \* HOUSING DEVELOPMENT ANALYSIS SPREADSHEET

Project Name: Renaissance Uptown Lofts

Spreadsheet directions are to the right ---->

Date: 4/14/2009

PAGE #1

Applicant: Renaissance HDC

Operating Proforma

Spreadsheet Version: 0.1

Required for Project Applications

STABILIZED FIRST YEAR INCOME						EXPENSES		
	% AMI	#of units	Sq. Ft.	Monthly Rent	Total Annual Rent	Administrative Expenses		
0 Bd	30-50%	3	400	358	12,900	Management Fee	34,000	5.28%
1Bd/1Ba	30%	10	550	300	36,000	Management Salaries	75,000	FTE
\$8 1 Bd	30%	30	550	665	239,400	Health Ins. & Benefits	34,400	
1Bd/1Ba	40%	14	550	400	67,200	Legal	5,000	
\$8 1 Bd	40%	15	550	665	119,700	Advertising	4,500	
2 Bd 1Ba	40%	1	740	550	6,600	Office Supplies	8,000	
1Bd/1Ba	50%	10	550	525	63,000	Telephone	3,000	
\$8 1 Bd	50%	5	550	665	39,900	Accounting	6,000	
2 Bd 1Ba	50%	1	740	600	7,200	Leased Equipment	2,000	
1Bd/1Ba	60%	7	550	525	44,100	Total Administrative Expenses	171,900	26.68%
2 Bd 1Ba	60%	1	740	700	8,400	Operating Expenses		
2 bd Empl		1	740	0	0	Utilities (owner paid)	75,000	
					0	Trash Removal	5,000	
					0	Fire & Liability Insurance	20,000	
					0	Other		
					0	Total Operating Expenses	100,000	
Total units		98	Total Rent Income		644,400	Maintenance		
Total sq ft		54,210				Maintenance	100,000	
			Parking Income		0	Repairs	45,000	
			Laundry Income		2,400	Grounds (inc. snow removal)	6,000	
			Other Income (SHP)		48,000	Other Contractual	29,000	
			Total Income		694,800	Total Maintenance	180,000	
Vac. Rate		0.07	Less Vacancy		-48,636	Real Estate Taxes	0	
			Effective Gross Income		646,164	Operating Reserve		unit avg.= 0
						Replacement Reserve	29,400	unit avg.= 300
			DEBT SERVICE			TOTAL ANNUAL EXPENSES	481,300	
			1st Mortgage		(107,919)	NET OPERATING INCOME	164,864	
			2nd Mortgage		0	P.U.P.A. Expenses *	4,911	
			3rd Mortgage		0	* P.U.P.A = Per Unit Per Annum Expenses		
			TOTAL DEBT SERVICE		(107,919)			
BEP		91.44%	Poss D/S @ 1.1 DCR		149,876	*Note:		
			Project Debt Coverage Ratio		1.528			

BEP = Break Even Point

Poss D/S @ 1.1 DCR = Possible Debt Service at a 1.1 Debt Coverage Ratio

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THAT PURSUANT TO §24-32-3301 et seq C.R.S. as amended, the State Housing Board of the State of Colorado (the "Housing Board") repeals and readopts Resolution #34 Factory Built Housing; and

THAT PURSUANT TO §24-32-3301 et seq C.R.S. as amended, the Housing Board states the basis and purpose of these rule changes is to update the current minimum construction and safety code for “Factory Built Housing” manufactured, sold, offered for sale, or occupied in Colorado; and

THAT PURSUANT TO §24-32-3301 et seq C.R.S. as amended, the Housing Board states that “Factory Built Housing” manufacturers shall have the option to contract with the Colorado Division of Housing or an authorized inspection agency to perform inspection and certification functions; and

The Housing Board repeals and readopts these rules and regulations to be administered and enforced by the Colorado Division of Housing (the Division of Housing).

## **RULES AND REGULATIONS**

### **Section 1: SCOPE**

Every Factory-Built Housing Unit manufactured after the effective date of these regulations that is manufactured, sold, offered for sale, or occupied in this state must display an insignia issued by the Division of Housing certifying that the unit is constructed in compliance with the standards adopted in schedule "B" which is incorporated herein and made a part of these Rules and Regulations by reference, and all other requirements set forth by this resolution.

The Housing Board states that the Program Manager, Housing Technology and Standards Section, Colorado Division of Housing, 1313 Sherman Street, Room 321, Denver, Colorado 80203, will provide information regarding how the codes adopted in Schedule "B" may be obtained or examined. Homes constructed under Schedule "B" do not include units built to the Federal Manufactured Home Construction and Safety Standards (HUD Standards). Incorporated material may also be examined at any state publications depository library.

### **Section 2: DEFINITIONS**

"ADMINISTRATIVE AGENCY" is the Colorado Division of Housing. The Division of Housing is the state agency responsible for enforcing the Factory-Built Housing Construction Statutes, Rules, and Regulations.

"ALTERNATIVE CONSTRUCTION (AC)" is specific additional construction and/or modification of the factory-built structure that directly affects the life, health, safety, and/or habitability of the structure and is not covered by the factory-built or installation certification insignias and requires inspection(s) to verify code compliance.

"AUTHORIZED INSPECTION AGENCY" means the Division of Housing or any state agency, firm, corporation or entity approved by the Division of Housing to conduct production inspections, to evaluate the manufacturer's quality control procedures, approve manufacturer's engineering manuals, approve factory built model construction plans, and/or factory-built installation instructions. Authorized Inspection Agencies will be "Registered" based on qualifications and "Certified" based on qualifications and performance.

"CONSTRUCTION, CLOSED" means any building, building component, assembly, or system manufactured in such a manner that all concealed parts or processes of manufacture cannot be inspected before installation at the building site without disassembly, damage, or destruction.

"CONSTRUCTION, OPEN" means any building, building component, assembly, or system manufactured in such a manner that all concealed parts or processes of manufacture can be

readily inspected at the building site without disassembly, damage, or destruction. Local jurisdictions have the approval authority for Open Construction.

"FACTORY-BUILT HOUSING" is a unit or component built in compliance to the applicable of codes listed in Schedule "B". These units are designed primarily for residential occupancy, either permanent or temporary (as determined by the local building department), which is wholly or in substantial part, made, fabricated, formed or assembled as Closed Construction in a manufacturing facility for installation, or assembly and installation, on permanent or temporary foundations at the building site.

"INSIGNIA" means a seal, label or tag issued by the Division of Housing to indicate compliance in the manufacture of a unit with the regulations established by the Housing Board when affixed to a Unit in conformance with this Resolution.

"INTERIM CHANGE" is a change made between the approval date and the expiration date.

"MANUFACTURER" means any person who constructs or assembles a manufactured residential or nonresidential structure in a factory or other off-site location. Manufacturers will be "Registered" based on the qualifications of quality control and "Certified" based on the performance of quality control.

"MODEL" is a specific design of factory-built units designed by the manufacturer, which is based on size, floor plan, method of construction, location arrangement and sizing of plumbing, mechanical or electrical equipment and systems therein in accordance with plans submitted to the Division of Housing.

"OCCUPIED" means a factory-built structure designed, built, modified, and/or used with the intent for individuals to enter.

"PRODUCTION INSPECTION" means the evaluation of the ability of the manufacturing facility to follow approved plans, standards, codes and quality control procedures during continuing production.

"PROHIBITED SALE NOTICE" means a printed notification issued by the Division of Housing for a structure providing that the unit may not be sold or offered for sale because of nonconformance(s) with §24-32-Part 33 C.R.S., as amended and these regulations.

"QUALITY CONTROL PROCEDURES" means procedures prepared by a manufacturer for each of its manufacturing facilities and approved by the Division of Housing or Authorized Inspection Agency describing the method that the manufacturer uses to assure units produced by

that manufacturer are in conformance with the applicable standards, codes, quality control procedures and approved plans.

"A RED TAG NOTICE" is a physical identification that a particular unit has a life threatening violation as set forth in §24-32-3302 (14). Units with life threatening deviations shall not be sold or offered for sale in Colorado.

“UNIT” means a factory-built house that shall comply with these rules and regulations

### **Section 3: PROGRAM PARTICIPANTS**

#### **Other States**

This program is open on a voluntary basis to all states with statutory authority to regulate the design and construction of Factory Built Housing covered by this Division of Housing Resolution.

Each state that wishes to participate in this program recognizes that they must enter into a memorandum of understanding with Colorado to establish mutual recognition and acceptance of codes and inspections. Areas of agreement include:

- ? Acceptance of construction codes that are adopted by the State of Colorado Housing Board for Factory Built Housing units sold into or offered for sale in Colorado. (See Schedule “B” in this Resolution).

- ? Acceptance of the design evaluation and approval performed by the Division of Housing or an authorized Inspection Agency for units sold into or offered for sale in Colorado.

- ? Performance of plant certifications and other inspection requirements. Routine inspections include performing inspections of at least one (1) unit in each phase of manufacturing and performing a minimum of a rough, final and other inspections and/or tests (as required in Schedule “B”) when a production line process is not being utilized. Also to place the manufacturer on a higher frequency of inspection when it is unable to conform, on a continuing basis, to approved quality control procedures and or approved plans and standards.

- ? Evaluation, at the manufacturing facility, of code compliance problems resulting from consumer complaints on labeled Colorado units; work with the manufacturer(s) in resolving such complaints by adequately following-up

and assisting them in correcting the complaint issue(s), and their production and/or inspection process.

? Provide sixty (60) days notice before withdrawing from participation in the program, thereby allowing a manufacturer sufficient time to obtain a new Authorized Inspection Agency.

*PARTICIPATING STATES OPERATING UNDER AN EXISTING STATE FACTORY BUILT HOUSING LAW HAVE THE OPTION TO ACT AS THE AUTHORIZED INSPECTION AGENCY WITHIN THEIR STATE.* They are not required to change any of their state fees, laws, or regulations other than those changes, which may be necessary to allow them to agree to the above items. Manufacturers are required to be inspected by their host state when this state agrees to perform inspections on Colorado units.

#### **Independent Authorized Inspection Agencies**

This program is open on a voluntary basis to all Division approved independent Authorized Inspection Agencies with the capabilities to regulate the design and in-plant construction of Factory Built Housing covered by this Division of Housing Resolution.

Each independent Authorized Inspection Agency that wishes to participate in this program recognizes that they must be approved by the Division and establish mutual recognition and acceptance of codes and inspections. Areas of agreement include:

? Acceptance of construction codes that are adopted by the State of Colorado Housing Board for Factory Built Housing units sold into or offered for sale in Colorado. (See Schedule "B" in this Resolution).

? Acceptance of the design evaluation and approval performed by the Division of Housing or an authorized inspection agency for units sold into or offered for sale in Colorado.

. Acceptance and use of the Division of Housing "Performance Criteria for Monitoring the In-Plant Quality Control Systems of Factory Built Plants" for in-plant inspection agencies.

. Acceptance and use of the Division of Housing "Performance Criteria for Factory Built Plan Review and Approval" standards for plan review agencies.



? Performance of in-plant certifications and other in-plant inspection requirements. Routine inspections include performing inspections of at least one (1) unit in each phase of manufacturing and performing a minimum of a rough, final and other or inspections and/or tests (as required in Schedule "B") when a production line process is not being utilized. Also to place the manufacturer on a higher frequency of inspection when it is unable to conform, on a continuing basis, to approved quality control procedures and or approved plans and standards.

? Evaluation, at the manufacturing facility, of code compliance problems resulting from consumer complaints on labeled Colorado units; work with the manufacturer(s) in resolving such complaints by adequately following-up and assisting them in correcting the complaint issue(s) and their production and/or inspection process.

? Provide sixty (60) days notice before withdrawing from participation in the program, thereby allowing a manufacturer sufficient time to obtain a new Authorized Inspection Agency.

*APPROVED PARTICIPATING INDEPENDENT INSPECTION AGENCIES OPERATING UNDER AN EXISTING CONTRACT WITH A MANUFACTURER OR LOCAL JURISDICTION WILL ACT AS THE SOLE AUTHORIZED INSPECTION AGENCY FOR THAT PLANT AND/OR LOCAL JURISDICTION.* They are not required to change any of their company policies other than those changes, which may be necessary to allow them to agree to the above items. Manufacturers are required to be inspected by their contracted independent Plan Review and/or In-Plant Authorized Inspection Agency when approved by the Division.

### **Manufacturers**

Any manufacturer of Factory Built Housing products that are sold into, offered for sale, and/or occupied in Colorado shall participate in this program and agree to comply with the following:

? All manufacturing facilities may have only one Authorized Inspection Agency for plan review and one Authorized Inspection Agency for inspections that is not the Division of Housing

? All in-state manufacturers shall have the option to contract with an Authorized Inspection Agency or continue to use the Division of Housing as the

Authorized Inspection Agency to perform certifications, in-plant production inspections, to evaluate their plant's quality control procedures, approve manufacturer engineering manuals, approve plant construction plans, and/or installation instructions.

? Out of state manufacturers are required to obtain the services of an Authorized Inspection Agency to perform certifications, in-plant production inspections, to evaluate the plant's quality control procedures, and may use the Authorized Inspection Agency to approve manufacturer engineering manuals, approve plant construction plans, and/or installation instructions.

? Out of state manufacturers located in states that have reciprocity or other agreements with the Division of Housing shall be notified if the state in which they are located will continue to inspect Colorado units or if they have to obtain the services of a firm or corporation to perform certification and in plant production inspections of Colorado units.

? After notification that the state in which they are located will no longer inspect Colorado units, manufacturers have (60) days to obtain another Authorized Inspection Agency.

? Out of state manufacturers without existing plant certifications and located in states that enter into an agreement with Colorado to inspect Colorado units, shall use that state as the Authorized Inspection Agency to perform certifications, in-plant production inspections and evaluations of their quality control procedures.

*? All manufacturers shall obtain prior approval from the Division of Housing or Authorized Inspection Agency for all quality control manuals, plans, and installation instructions before manufacturing and affixing the Colorado and Authorized Inspection Agency label(s) to units constructed under those approvals.*

? All manufacturers shall allow and pay for the reasonable costs incurred by the Division of Housing for work related to retaining and evaluating their performance and registration/certification status.

? All manufacturers shall allow and pay for oversight inspections as required by the Division of Housing or Authorized Inspection Agency to assure compliance to the approved designs.

? All manufacturers shall permit Division of Housing or Authorized Inspection Agency monitoring personnel to review plans and to perform in-plant and/or field inspections.

? All manufacturers shall correct any code violations in plans discovered by the Division of Housing or by the Authorized Inspection Agency monitoring personnel, or forfeit the right to have Division of Housing and Authorized Inspection Agency labels affixed.

? All manufacturers shall correct any construction code violations within 20-days, or forfeit the right to have Division of Housing labels affixed.

? All manufacturers must provide the Division of Housing with a monthly inspection report showing the Authorized Inspection Agency and the Division of Housing label number(s), unit serial number(s), and the first destination of shipped Units.

? All manufacturers shall submit a fully completed and legible oversight inspection data sheet to the Division prior to shipment of the home from the factory.

### **Manufacturer Registration, Certification, and Performance Requirements**

Manufacturers of Factory Built Housing which are manufactured, sold into, offered for sale, and/or occupied in the State of Colorado must register with the Division of Housing. Registrations are for a specific plant location, and are not transferable to any other locations including those of the same manufacturer.

Where there is a change in ownership, address, or location of manufacture, the manufacturer having Division of Housing certification shall notify the Division of Housing within ten (10) working days of such a change. At such time the Division of Housing shall review the performance of the manufacturer and transfer or revoke the certification.

Plant certification is granted to a manufacturer's registered plant, based on adequate plant production performance, for a specific location, and is not transferable to other locations. Plant certification is a certification of the plant Quality Control (QC) program and the quality control personnel that ensures construction code compliance. The Division shall be immediately notified of any changes to the QC program and/or personnel.

The manufacturer's quality control department shall do "no cover" inspections for all phases of construction on all units and witness all required tests, regardless of plant status.

At the time of plan submittal *all* manufacturers are required to have Division of Housing approval, in writing, of the state, firm, corporation or entity that will conduct the certification and in-plant inspections of Colorado units. Additionally, manufacturers are also required to request approval of the Division of Housing thirty (30) days prior to any subsequent change of their Authorized Inspection Agency.

Upon Division of Housing approval of the Authorized Inspection Agency for production inspections, approved copies of the plans and quality assurance manual shall be sent to the manufacturer. Upon the manufacturer's receipt of the approved plans and manual, the Authorized Inspection Agency shall schedule plant production oversight inspections.

Registered plants shall be inspected for certification approval on an ongoing basis. Upon completion of certification inspections, a letter recommending plant certification and a copy of the certification inspection report shall be faxed by the Authorized Inspection Agency to the Division of Housing with a copy to the manufacturer. Upon receipt of this report, the Division of Housing will review it for completeness and accuracy. The manufacturer can then ship the certification unit(s) to Colorado for field inspection by the Division of Housing. After field inspection, the Division of Housing will notify the manufacturer if the unit has passed inspection and if the plant is certified or not certified.

Manufacturers are required to construct, on a continuing basis, factory built housing in conformance with plans, quality control manual, codes, standards, and procedures prepared by them and approved by the Division of Housing or Authorized Inspection Agency. The certification of a plant is considered to be ongoing unless conditions warrant immediate removal of the certification. Conditions for removal of certification are:

- ? The change of an Authorized Inspection Agency or change in Authorized Inspection Agency status.

- ? The change of a plant location.

- ? Where a plant has had Division of Housing and/or Authorized Inspection Agency labels removed by the Authorized Inspection Agency pursuant to the Division of Housing procedures.

- . Less than six Colorado certified factory-built homes produced in a calendar year.

Manufacturers demonstrating that they cannot perform within their approvals shall be placed on a higher frequency of inspection until their performance improves. If their performance does not improve, the manufacturer may have their Division of Housing certification status revoked.

In accordance with C.R.S. 24-32-3307, the State Director of Housing may pursue injunctive relief against manufacturers that fail to construct homes in accordance with their approved plans and quality control manual, fail to correct code violations, fail to comply with C.R.S. 24-32-Part 33, or fail to comply with these rules.

#### **Manufacturer Certification Status**

Plant Certification status runs concurrent with the plant registration period. Each manufacturer is required to resubmit their quality control manual (and when applicable, plans) for approval prior to the registration/certification expiration date that is stamped on the quality control manual. This shall be complied with regardless of when plans are approved or homes shipped. Failure to comply with this requirement shall result in the loss of Certified status for the plant.

When a licensed professional stamps and signs plans or calculations, the same professional or the agency the professional works for, may not review and approve the plans for construction.

### **Section 4: AUTHORIZED INSPECTION AGENCIES**

#### **Authorized Inspection Agency Approval**

All manufacturers that use an Authorized Inspection Agency to perform production inspections, evaluate quality control procedures, approve engineering manuals, approve plans, and/or approve installation instructions shall have such agency, other than states, request approval from the Division of Housing as an inspection agency for the State of Colorado. Request from firms, corporations or other entities shall contain the following minimum requirements:

? Name and address of agency making application.

? Categories for which agency seeks approval.

? A list of key personnel, with resumes, indicating their primary functions or duties.

- 505
- 506       ? The number of years the agency has actively engaged in the business for which
- 507               they seek approval.
- 508
- 509       ? A statement by the agency that it will adhere to all the requirements of the
- 510               Division of Housing.
- 511
- 512       ? An explanation of the agencies plan review, plant certification, and/or inspection
- 513               procedures, including copies of the quality assurance and other inspection
- 514               reports.
- 515
- 516       . A copy of the agencies ICC, IAS, or other Division approved accreditation
- 517               certificate as required.
- 518
- 519       . A copy of the Colorado professional Engineer or Architect certification for and
- 520               employee that will be responsible for plan review and approval work as
- 521               required.
- 522
- 523       . A copy of the Colorado professional license and/or International Code Council
- 524               (ICC) inspector certifications for all personnel that will be performing in-
- 525               plant and/or field inspections as required.
- 526
- 527       ? Agree to furnish any other information that the Division of Housing may deem
- 528               necessary in order to properly evaluate and grant approval.
- 529
- 530       ? A statement that the submitting firm, corporation or entity is independent and
- 531               does not have any actual or potential conflict of interest and is not affiliated
- 532               with, influenced by, or controlled by any present or potential client
- 533               manufacturer in any manner which might effect its capacity to render
- 534               service or reports of findings objectively and without bias.
- 535
- 536       ? The request must contain the signature of a responsible officer, owner, or partner
- 537               of the submitting agency.
- 538
- 539       ? A list of the factory built housing manufacturers that are currently inspected.
- 540
- 541       Authorized Inspection Agencies may only work in the specific categories for which the Division
- 542               of Housing has granted approval in writing.
- 543
- 544

545 **Authorized Inspection Agency Qualifications**

546  
547 An Authorized Inspection Agency shall have the following requirements. Any  
548 exceptions shall have prior approval by the Division of Housing.

549  
550 ? States - Must have existing statutory authority to regulate the design and  
551 construction of Factory Built Housing.

552  
553 - Must also enter into a memorandum of understanding with Colorado.

554  
555 ? Firms, corporations or other entities - Must currently be listed with a national  
556 listing agency such as the ICC International Accreditation Service or other Division  
557 approved agency.

558  
559 After reviewing the request, the Division of Housing will notify the requesting firm,  
560 corporation or entity of their acceptance or denial as an Approved Inspection Agency for  
561 Colorado.

562  
563 **Authorized Inspection Agency Quality Control and Reporting Requirements**

564  
565 Authorized Inspection Agencies shall conduct certifications, in-plant production  
566 inspections, in-plant evaluations of the plant's quality control procedures, review  
567 manufacturer engineering manuals, approve plant construction plans, approve installation  
568 instructions, and/or installation inspections in accordance with Division of Housing  
569 approved procedures and documents.

570  
571 The structure will be inspected to the approved plans, except where the plans are not  
572 specific, and then the inspection shall be to the standards. The Authorized Inspection  
573 Agency will also monitor the plant personnel performing the construction, testing, and  
574 inspections.

575  
576 An Authorized Inspection Agency, when a plant is not certified, shall conduct a  
577 minimum of a rough, final, and other inspections as required per code (see Schedule "B")  
578 for all units manufactured.

579  
580 The Authorized Inspection Agency shall notify the Division in writing when it is satisfied  
581 that the manufacturer is capable of consistently manufacturing units to the approved plans  
582 and codes. Upon successful completion of certification inspections, a letter  
583 recommending plant certification and a copy of the certification inspection report shall be  
584 faxed by the Authorized Inspection Agency to the Division of Housing with a copy to the  
585 manufacturer. Upon receipt of this report, the Division of Housing will review it for

completeness and accuracy. The manufacturer can then ship the certification unit(s) to Colorado for field inspection by the Division of Housing. After field inspection, the Division of Housing will notify the manufacturer if the unit has passed inspection and if the plant is certified or not certified.

After the Division approves certified status for a plant, each unit being produced for Colorado shall be inspected by the Authorized Inspection Agency in one (1) phase of construction, minimum. In the course of each visit, the inspector shall also make a complete inspection of every phase of production line, systems testing, and of every Colorado unit in production as well as a random sampling of finished product on site.

Whenever the Authorized Inspection Agency finds that a manufacturer is unwilling or unable to conform on a continuing basis to the approved quality control procedures, and/or approved plans or standards, that manufacturing facility shall be placed on a higher frequency of inspection. The Division of Housing shall be notified and the certification labels held until the manufacturer demonstrates that they can perform within their approvals. If after three consecutive inspections, the last inspection still indicates that the manufacturer is not able to perform within their approvals or standards, all remaining insignias paid for by the manufacturer will be returned to the Division of Housing and no further insignias issued until problems are resolved. The Authorized Inspection Agency shall notify the Division of Housing of the action(s) taken.

Additional information, such as increased frequency and routine quality assurance inspection reports, will be requested by the Division of Housing in order to review the inspections conducted on specific units.

The Authorized Inspection Agency is required to provide its own inspection label so that it, also, can be affixed adjacent to the Colorado certification label(s) to each unit shipped to Colorado.

#### **Division of Housing Monitoring of Authorized Inspection Agencies**

The performance of all Authorized Inspection Agencies shall be monitored by Division of Housing to determine if they are fulfilling their responsibilities as required under this program.

The monitoring activities carried out by the Division of Housing staff shall consist of:

- ? Performing oversight inspections on homes that are shipped to Colorado. The purpose of these certification and other inspections are to evaluate the



626 performance of the manufacturer and inspection agency in ensuring the  
627 selected homes comply with approved plans and construction codes.

628  
629 Based upon finding(s) of inadequate performance, the frequency of  
630 inspections may be increased as determined by the Division of Housing  
631 procedures.

632  
633 ? Reviewing all records of interpretations of the standards made by the Authorized  
634 Inspection Agency to determine whether they are consistent and proper.

635  
636 ? Reviewing inspection reports, records and other documents to assure that  
637 Authorized Inspection Agencies are carrying out all their responsibilities as  
638 set forth in the Division of Housing requirements.

639  
640 ? Reviewing records to assure that the Authorized Inspection Agency is maintaining  
641 proper label control and records pursuant to the requirements of this  
642 program.

#### 643 644 **Frequency of Monitoring**

645  
646 An approved Authorized Inspection Agency shall be periodically monitored. Every  
647 aspect of all actions of the Authorized Inspection Agencies shall be reviewed at a  
648 frequency adequate to assure that they are performing consistently to the Division of  
649 Housing requirements.

#### 650 651 **Resolution of Code Interpretation Conflicts**

652  
653 The Division of Housing will, upon written request, investigate complaints related to  
654 adopted construction code interpretation and enforcement. A written request must  
655 identify the Authorized Inspection Agency, the location of the structure(s) in question,  
656 the nature of the dispute, the code section reference, and all involved parties with contact  
657 information. Upon receipt of the request, the Division will contact all parties for a  
658 written response to the issues. After any necessary follow-up, the Division will issue an  
659 interpretation to resolve the code dispute to all parties. The Division's interpretation may  
660 be appealed to the Colorado State Housing Board Technical Advisory Committee. The  
661 decision of the committee is final.

**Section 5: MANUFACTURER APPLICATION AND PLAN SUBMITTAL**

All manufacturers shall obtain prior approval of each set of designs from the Division of Housing or Authorized Inspection Agency before manufacturing and affixing the Colorado and Authorized Inspection Agency label(s) to unit(s) constructed under those plans.

Applications to the Division shall be made on forms supplied by the Division of Housing and shall be accompanied by the appropriate fees from Schedule "A" which is incorporated herein and made a part of these Rules and Regulations by reference.

Submittal for approval of quality control manuals and model plans shall meet or exceed the minimum requirements as specified by the Division of Housing.

All applications submitted shall be signed by an officer of the manufacturer that is in a responsible position with the authority to commit manufacturers to comply with the rules and regulations that govern the Colorado Factory Built Housing Construction Program.

The Division of Housing will grant or deny approval within twenty (20) working days of the receipt of a complete submittal with the appropriate fee and with the required number of copies.

If a submittal is not completed within one hundred twenty days of the initial application date, the application shall expire and all fees shall be forfeited.

Expired applications must be resubmitted as new applications with new application forms, submittals and fees.

Plans that include Alternative Construction will not be approved without certification by the local jurisdiction or CDOH accepting inspection responsibility for the AC work.

Approved plans and quality control manuals shall be evidenced by the stamp of approval of the Division of Housing or Authorized Inspection Agency. One approved copy shall be returned to the manufacturer and shall be retained at the place of manufacture. An approved copy shall be retained by the approving agency. Authorized Inspection Agencies shall send an additional approved copy to be kept on file with the Division of Housing. Interim changes, additions, or deletions will not be acceptable without prior approval of the agency that originally approved the plans.

All units, which are manufactured, sold, or offered for sale in the State of Colorado, must display the Division of Housing and Authorized Inspection Agency insignias if applicable. These insignias certify that the unit is constructed in compliance with applicable codes and regulations adopted by the State Housing Board.

The granting of plan approval shall not be construed to be a permit or approval of any violation of the provisions of these regulations. All structures shall be subject to Division of Housing or Authorized Inspection Agency field inspection. The approval of the plans shall not prevent the Division of Housing or the Authorized Inspection Agency from requiring the correction of errors found in the plans or the unit itself, when found in violation of these regulations.

Approved copies of the quality control manual and plans shall be kept on file within the plant of manufacture for the purpose of construction and inspection by Division of Housing inspectors or the Approved Inspection Agency.

Plan approvals are granted to a manufacturer for a specific plant location and are not transferable to other locations including those of the same manufacturer.

Interim plan change approvals shall be required where the manufacturer proposes a change in structural, plumbing, heating, electrical, and/or fire life safety systems. Such changes shall become part of the approved plan unless the Division of Housing determines that the change constitutes a new model. If determined a new model, the interim change shall be processed as a new application. The difference in fees will be assessed.

The Division will approve unchanged plan renewals, previously approved by the Division, provided there has been no change in adopted codes and the plant General Manager certifies in writing that the plans are identical to those previously approved. The "Supplemental plan check fee" will apply. Should it be determined by the Division that plan changes have been made, the manufacturer will be subject to a Red Tag fee for every unit built to the changed plans and will conduct an investigation to ensure the code compliance of the homes built to the changed plans.

When amendments to these regulations require changes to be made to an approved plan, the Division of Housing shall notify the manufacturer of the requirement and shall allow the manufacturer a reasonable time to submit revised plans for approval. Revised plans shall be processed as interim changes with the appropriate fees assessed.

Some building departments require a set of prints with the Colorado approval stamp. This can be addressed by requesting that additional prints be approved and provided to the Division at the time of original application. Appropriate fees must accompany requests for more than three approved plan sets. The Division will provide a Plan Submittal Checklist upon request.

#### **Authorized Inspection Agency Plan Approval**

Manufacturers may, at their expense, use an Authorized Inspection Agency that has been approved by the Division for plan review and approval. Reference Section 4 of these Rules and Regulations.

### **Section 6: PLANT/PLAN/QUALITY CONTROL REGISTRATION/CERTIFICATION EXPIRATION DATE**

The plant registration period is one year. Plant Certification status runs concurrent with the plant registration period. Each manufacturer is required to resubmit their quality control manual (and when applicable, plans) for approval prior to the registration/certification expiration date that is stamped on the quality control manual. Failure to comply with this requirement shall result in the plant having to comply with the initial registration/certification inspection requirements.

*The registration/certification expiration date for all plants is determined by the expiration date that is stamped on the quality control manual. Plans that are submitted at the time of registration/certification and/or within the registration/certification period shall have the same registration/certification expiration date as the quality control manual.*

It shall be the responsibility of the manufacturer to submit to the Division of Housing or Authorized Inspection Agency an application for plant registration and quality control manual approval thirty (30) days prior to the expiration date.

### **Section 7: PLANT PRODUCTION AND INSPECTION FEES**

The Division of Housing and/or the Authorized Inspection Agency shall conduct certification and production inspections of all manufacturers engaged in the manufacturing or offering for sale of Factory-Built Housing Units in the State of Colorado. This inspection shall include the quality control program and systems testing.

? The fees for Division of Housing inspections are shown in Schedule "A".

? The cost of Division of Housing inspections are not refundable.

At the time of initial registration and upon each request to renew registration, all manufacturers must submit a copy of I. R. S. Form W-9 (request for taxpayer identification number and certification) to the Division of Housing.

## **Section 8: POSTED UNITS**

Whenever an inspection reveals that a unit fails to comply with any provision of these rules and regulations, the Division of Housing or the Authorized Inspection Agency may post such a unit with a Prohibited Sale Notice/Red Tag Notice.

### **Prohibited Sale Notice**

When a unit is posted with a Prohibited Sale Notice, the Division of Housing or the Authorized Inspection Agency will notify the affected parties that the structure contains a violation(s). The affected parties must resolve the prohibited sale issues with the agency that posted the unit.

? A unit posted with a Prohibited Sale Notice, shall not be sold or offered for sale in the State of Colorado, nor shall the unit be moved or caused to be moved without the prior written approval of the Division of Housing or Authorized Inspection Agency.

? Within five (5) working days, the affected parties or their agents shall notify, in writing, the Division of Housing or the Authorized Inspection Agency of the action taken to correct the violation(s) and what steps have been taken by management to preclude the recurrence of the violation(s). Failure to respond within five (5) days may cause revocation of an affected parties status.

? All units posted with a Prohibited Sale Notice shall be corrected or removed from the state (with prior written approval of the Division of Housing or Authorized Inspection Agency). All units that are corrected shall be reinspected to assure compliance with the codes and regulations. A reinspection fee will be assessed.

### **Red Tag Notice**

A Red Tag Notice is a physical identification that a particular unit has a life threatening violation. When a unit is posted with a Red Tag Notice, the Division of Housing or the Authorized Inspection Agency inspector will notify the affected parties that the unit contains a life threatening violation(s). The affected parties must resolve the Red Tag issue(s) with the agency that posted the unit.

? A unit posted with a Red Tag Notice shall not be sold or offered for sale in the State of Colorado.

? All units that are corrected shall be reinspected to assure compliance with the codes and regulations. A reinspection fee will be assessed.

Prohibited Sale Notices/Red Tag Notices shall be removed only by an authorized representative of the Division of Housing or Authorized Inspection Agency.

### **Section 9: REVOCATION OF PLANT CERTIFICATIONS**

The Housing Board may revoke a plant certification after notice and hearing pursuant to Section 24-4-104 & 24-4-105, C.R.S., whenever a manufacturer has violated any provision of these regulations or when a plant certification was granted in error, on the basis of incorrect information supplied by the applicant.

Judicial review of plant certification revocation actions shall be governed by Section 24-4-106, C.R.S.

### **Section 10: DENIAL OF PLANT REGISTRATION/CERTIFICATION**

The Division of Housing may deny an application for plant registration, certification, or re-certification if an applicant manufactures any unit in violation of approved plans or these rules and regulations. In addition, as a condition of registration, certification, or re-certification, the Division of Housing may impose any of the following conditions for registration, certification, or re-certification:

? Revision of the manufacturer's Quality Control Program.

? Identification by model and serial number of each unit to be offered for sale in Colorado.

? Inspection of each unit prior to affixing certification insignias.

? Inspection of the manufacturer's plant (with the cost of inspection borne by the manufacturer).

Resolution of previous violations and/or unpaid fees.

? Any combination of above or other action as determined necessary to insure future compliance with these regulations.

The Division shall promptly notify the applicant of the denial or condition imposed. The applicant may, within sixty (60) days following such action, request a hearing before the Housing Board. If requested, a hearing shall be conducted pursuant to Section 24-4-105, C.R.S. Thereafter, the final decision of the Housing Board shall be subject to judicial review in accordance with Section 24-4-106, C.R.S.

#### **Section 11: CERTIFICATION INSIGNIA APPLICATION AND REPORTS**

Registered (non-certified) and certified manufacturers must submit an application for Colorado insignias on forms provided by the Division of Housing with the appropriate fees from Schedule "A".

Insignias for registered manufacturers will be held by the Division of Housing or Certified Authorized Inspection Agency and affixed to each unit upon final inspection approval by the Division or Authorized Inspection Agency.

Insignias for certified manufacturers will be mailed to the manufacturer and shall be affixed to Colorado certified units upon final approval by the manufacturer's quality control manager.

Insignias are assigned for use at a specific plant location and shall not be transferable or used on an unapproved model. Colorado certification insignias issued for one type of certification may not be used on a unit of another (different) type. A 3"x5" primary insignia, documenting manufacturer and unit design information, is required for the first section of a home. Each additional habitable floor section requires a 2"x2" "Additional Floor Tag" insignia.

The primary Insignia must be permanently affixed inside the kitchen sink cabinet or inside the vanity cabinet if there is no kitchen sink, prior to units being removed from a Certified plant. Additional Floor Tag insignias are to be permanently affixed and located directly under the primary insignia.

The manufacturer shall legibly stamp the unit serial number, date of manufacture, wind design speed, roof design load, and construction codes on the primary insignia.

Insignia reports shall be submitted by the manufacturer to the Division of Housing by the first of each month on forms or copies of forms supplied by the Division of Housing. An insignia report is required when the manufacturer has insignias outstanding during that period. Manufacturers are also required to provide the Division of Housing a copy of their monthly production report.

Corrected or delinquent insignia reports may be required prior to the issuance of additional insignias.

Primary Insignias are to be affixed in consecutive order.

Colorado insignias shall remain the property of the State of Colorado and may be confiscated by the Division of Housing upon any violation of this resolution. Defaced, marked in error, or voided insignias shall be returned to the Division of Housing without refund. Colorado insignias shall be stored in a safe and secure location approved by the Division or Authorized Inspection Agency.

A Notification of Oversight Inspection Data Sheet form shall be legibly completed and submitted to the Division of Housing prior to the shipment of every Colorado unit.

Factory Built Structures shall not be modified, prior to or during, installation at a site without approval from the Division of Housing.

## **SECTION 12: IRREGULARITIES**

Any and all irregularities in these Rules and Regulations shall not be justification for producing any Unit without proper inspections and in violation of the adopted construction codes.

6/3/09

ATTEST:

\_\_\_\_\_  
Teresa Duran, Acting Director  
Colorado Division of Housing

\_\_\_\_\_  
Date

\_\_\_\_\_  
Theo Gregory, Chairperson  
Colorado State Housing Board

\_\_\_\_\_  
Date



**SCHEDULE "A"**  
**FEE SCHEDULE**

All fees, except inspection and oversight fees, are due in advance and must accompany the application. Fees shall not be subject to refund.

1. Annual Plant registration fee: \$500.00
2. Annual Inspection Agency registration fee: \$250.00
3. Plan checking fees (maximum 3-sets):

Finished space	\$0.25 per sq. ft. (\$160 min.)
Unfinished space	\$0.10 per sq. ft.
4. Certification insignia fee:

Primary Insignia-	\$100.00
Additional Floor Tag-	\$100.00
5. Supplemental plan check fee (revisions, duplicate sets etc.): \$0.10 per sq. ft. (\$50 min.)  
Note: Fee for revisions to be calculated based on space revised.
6. Oversight plan check fee: \$0.15 per sq. ft. (\$100 min.)
7. Waiver of fees for Government Assisted Housing; with State Housing Board concurrence, the Division of Housing may waive plan review and inspection fees for units to be subsidized under local, state or federal housing programs for low-income households.
8. Inspection fees:
  - A. Plant certification inspection fee: \$350.00 per inspector per trip
  - B. Oversight/AC inspection fee: \$230.00 per inspector per trip.
  - C. Special inspection fee:

In-State: \$50.00 per hour, per inspector plus trip expenses of travel, food, lodging, parking, car rental, etc. as allowed in state fiscal rules for per diem and travel.
Out of-State: \$50.00 Hour/ per inspector plus trip expenses of travel, food, lodging, parking, car rental, etc. as allowed in state fiscal rules for per diem and travel.
  - D. Prohibited Sale/Red Tag fee: \$250.00

989 **SCHEDULE "B"**  
990  
991

992 The State Housing Board adopts the following nationally recognized codes as the "Colorado  
993 Construction Safety Code for Factory-Built Housing".  
994  
995

996 **Factory-Built Housing Construction Code of the State of Colorado**  
997

998 Shall be:  
999

- 1000 1. The International Building Code, 2006 Edition, published by the International Code  
1001 Council, Inc.
- 1002 2. The International Residential Code, 2006 Edition, published by the International Code  
1003 Council, Inc.
- 1004 3. The International Mechanical Code, 2006 Edition, published by the International Code  
1005 Council, Inc.
- 1006 4. The International Plumbing Code, 2006 Edition, published by the International Code  
1007 Council, Inc.
- 1008 5. The National Electric Code, 2008 Edition, published by the National Fire Protection  
1009 Association, Inc.
- 1010 6. The International Fuel Gas Code, 2006 Edition, published by the International Code  
1011 Council, Inc.
- 1012 7. The International Energy Conservation Code, 2006 Edition, published by the  
1013 International Code Council, Inc. effective until June 30, 2010.
- 1014 8. The International Energy Conservation Code, 2009 Edition, published by the  
1015 International Code Council, Inc. effective July 1, 2010.  
1016

1017 Transition Period: Manufacturers shall be permitted to use the construction codes in effect prior  
1018 to the adoption of this resolution for a maximum of 90-days after this resolution takes effect.

**AMENDMENTS:**

The following amendments by addition, deletion, revision and exceptions are made:

**INTERNATIONAL BUILDING CODE:**

**Section 310, R-3, Add new sentence at the end:**

A single building or structure where 5 or less adults sleep at any time (commercial worker housing) may comply with the International Residential Code as a dwelling provided there is no mixed occupancy and there is permanently affixed signage in the immediate vicinity of sleeping rooms that states “No more than 5-adults may sleep at any time in this building”.

**Section 901.5.1 Add the following Section:**

**Special inspector required.** All fire protection systems required by this Chapter shall be inspected and approved by a special inspector. The inspector shall be an employee of the fire department having jurisdiction or another qualified individual with prior approval of the Colorado Division of Fire Safety. Inspections and approvals will be regulated under Chapter 17 of this Code.

**Section 907, Amend title to: “Single and multiple station alarms” and add subsections:**

**907.2.10.5 Carbon monoxide alarms.** In new construction, dwelling units within which fuel-fired appliances are installed or have an attached garage, shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area within 15 feet of the bedroom(s) access.

**907.2.10.5.1 Alarm requirements.** The required carbon monoxide alarms shall be clearly audible in all bedrooms over normal background noise levels with doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer’s installation instructions.  
UL 2034 2008 Standard for Single and Multiple Station Carbon Monoxide Alarms

**907.2.10.6 Separate circuits prohibited.** Smoke and/or Carbon Monoxide alarms shall not be installed on a circuit dedicated only for Smoke and/or Carbon Monoxide alarms.

**Section 1507.1.1, Ice Dam Membrane Required is amended to read:**

Ice dam protection is required where stated throughout Section 1507 due to a history of ice forming along eaves in Colorado. Regardless of roof slope or material, when the snow load is above sixty five pounds per square foot (65lb./sq.ft.), roofing underlayment shall be two layers of Type 15 felt applied shingle fashion and solid mopped together with approved cementing material between the plies, or 40 mil listed self adhering roofing membrane and shall be installed extending from the eave up the roof to a point 8 feet 6 inches inside the exterior wall line of the building and shall extend continuously to a point 4 feet from any valley, cricket or similar construction junctions with roofs. The ice dam membrane shall extend up vertical construction junctions such as dormer walls a minimum of twelve (12) inches prior to the installation of flashing and roof covering.

**Section 1608.2, Ground Snow Load is amended to read:**

Roof Snow Load (Pf) design criteria shall be in accordance with the local jurisdiction requirements. The minimum roof snow load shall be 30 PSF and the allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

**Section 1609.1.1. Add the Following:**

Wind Load design criteria shall be in accordance with the local jurisdiction requirements. The minimum Wind load design criteria shall be 90 MPH, Exposure C, unless otherwise justified.

**Section 2111.1.1. New Fireplaces – Add the following section:**

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs.
2. Other approved gas or alcohol specific appliances.
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

**INTERNATIONAL RESIDENTIAL CODE:**

**Section R202 – Definitions**

Add definition:

**ZERO-ENERGY BUILDING.** A building with zero net energy consumption and zero carbon emissions annually as certified by an approved annual energy use analysis.

**Section R105.2, Work exempt from permit. Building:**

**Item #1. Change 120 square feet to 200 square feet**

**TABLE R301.2 (1) IS AMENDED TO READ:**

ROOF SNOW LOAD <sup>1</sup>	WIND SPEED (mph) <sup>1</sup>	SEISMIC DESIGN CATEGORY	Subject to Damage From				WINTER DESIGN TEMP <sup>2</sup>	ICE BARRIER UNDERLAY MENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX <sup>3</sup>
			WEATHER	FROST LINE DEPTH	TERMITE					
MIN. 30 psf	MIN. 90 mph, Exp. C	B	SEVERE	PER LOCAL	SLIGHT		PER LOCAL	YES	PER LOCAL	PER LOCAL

<sup>(1)</sup>The roof snow load and wind speed shall be in accordance with the local jurisdiction requirements and shall not be less than the minimums stated. The allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

<sup>(2)</sup>See Attachment A and verify with local jurisdiction..

<sup>(3)</sup>See the National Climatic Data Center data table “Air Freezing Index-USA Method (Base 32° Fahrenheit)” at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html).

**Table R301.5 – Live Loads**

...add footnote (j) to Decks, Exterior balconies, Fire escapes:

<sup>(j)</sup>When the snow load is above 65 psf, the minimum uniformly distributed live loads for exterior balconies, decks and fire escapes shall be as required for roof snow loads.

**Section 313, Amend title to: “Alarms” and add subsections:**

**R313.1.1 Carbon monoxide alarms.** In new construction, dwelling units within which fuel-fired appliances are installed or have an attached garage, shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area within 15 feet of the bedroom(s).

**R313.1.2 Alarm requirements.** The required carbon monoxide alarms shall be clearly audible in all bedrooms over normal background noise levels with doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer’s installation instructions.

UL 2034 2008 Standard for Single and Multiple Station Carbon Monoxide Alarms

**R313.2 Add new sentence at the very end:**

Smoke and/or Carbon Monoxide alarms shall not be installed on a circuit dedicated only for Smoke and/or Carbon Monoxide alarms.

**Section R802.10 Wood trusses.**

...add new section:

**R802.10.6 Marking.** Each truss shall be legibly branded, marked, or otherwise have permanently affixed thereto the truss identification as shown on the truss design drawing located within two (2) feet of the peak of the truss on the face of the top chord.

**Section R905.1 – Roof Covering Application**

...add subsection:

**R905.1.1 Ice dam membrane required.** Ice dam protection is required, where stated throughout Section R905, due to a history of ice forming along eaves in Colorado. An ice dam protection underlayment that consists of at least two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet shall extend from the eave’s edge to a point at least 24 inches inside the exterior wall line of the building. For snow loads above 65 psf, the ice dam membrane shall be extended from the eave to a point 8 feet 6 inches inside the exterior wall line, and shall extend continuously to a point 4 feet from any valley, cricket or similar construction junction with roofs. The ice dam

membrane shall extend up vertical construction junctions such as dormer walls a minimum of twelve (12) inches prior to the installation of flashing and roof covering.

**Section R1004.4, G2406.2 exception 3 and 4, G2425.8 #7, G2445; Delete all and add:**

Unvented fuel fired room heaters are prohibited.

**Section R1004.5 – Fireplaces**

...add:

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs;
2. Other approved gas or alcohol specific appliances;
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) at the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

**Chapter 11 – ENERGY EFFICIENCY**

Replacement Date:

On July 1, 2010 the entire chapter is to be deleted and replaced with Chapter 11 of the 2009 International Residential Code.

...add new sentence:

**N1101.1 Scope.** An approved “Zero-Energy Building” is exempt from the provisions of this Chapter 11.

**Section M2001.1 - Installation**

...is amended to add the following sentence:

All rooms or spaces containing boilers shall be provided with a floor drain and trap primer.

**Section G2417.4.1 Test pressure**

...is amended as follows:

The test pressure to be used shall be not less than one and one half times the proposed maximum working pressure, but not less than 10 psig (69 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

**Electrical Sections**

Delete Chapters 33 through 42.

**INTERNATIONAL FUEL GAS CODE:**

**Section 303.3 Prohibited locations.**

...Add Item:

Number 6. LPG appliances. LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shutoff valve at the tank.

Delete Exception Numbers 3 and 4.

**Section 406.4.1 Test pressure.**

...amend to read:

The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50



percent of the specified minimum yield strength of the pipe. Welded gas and medium pressure piping (14 inch water column or greater) shall be tested at a minimum of 60 psi.

**Section 601.1. Scope.** Add the following sentence:

Approved and listed gas logs shall be installed in new solid fuel burning fireplaces when required by Sections 2111.1.1 of the International Building Code as amended.

**Section 621 Unvented room heaters.** Amend to read:

Unvented fuel fired room heaters are prohibited.

#### **INTERNATIONAL PLUMBING CODE:**

The following Appendix Chapters to the International Plumbing Code, 2006 Edition, are hereby adopted.

**Appendix Chapter D** – Degree Day and Design Temperatures for Cities in the United States.

**Appendix Chapter E** – Sizing of water piping systems.

No other appendix chapters are adopted.

#### **INTERNATIONAL MECHANICAL CODE:**

**Add the following Sections –**

##### **Section 303.3.1 LPG appliance.**

LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shut-off valve at the LPG tank.

##### **Section 903.1 General.** Add sentence:

Every new installation of a solid fuel-burning, vented decorative appliance or room heater shall meet the most stringent emission standards for woodstoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission as of the time of installation of the appliance for room heater. (Effective January 1, 1991 – CC90-617.)

**Section 903.3**...is amended to read as follows:

Unvented gas log heaters are prohibited.

## **INTERNATIONAL ENERGY CONSERVATION CODE**

### **Section 101.2.1 Exempt Buildings.**

...add exemption:

**101.2.1.3 Zero-Energy Buildings.** Zero energy buildings are exempt from the provisions of the International Energy Conservation Code.

### **Section 202 – Definitions**

...add definition:

**ZERO-ENERGY BUILDING.** A building with zero net energy consumption and zero carbon emissions annually as certified by an approved annual energy use analysis.

## **NATIONAL ELECTRIC CODE:**

The following amendments by addition, deletion, revision and exceptions are made to the **National Electrical Code, 2008 Edition**, for use with all Factory Built units:

1. Article 406.8(C), (1) Shower or Bathroom space. Receptacle outlet shall not be installed in or within 30 inch (762 mm) of a shower or bathtub base.
  2. Article 545, Manufactured Buildings, is amended to include: 545.14. Testing.
    - (A) Dielectric Strength Test. The wiring of each factory built unit shall be subjected to a 1-minute, 900-volt AC or 1273-volt DC dielectric strength test (with all switches closed) between live parts (including neutral) and the ground. Alternatively, the test shall be permitted to be performed at 1,080–volts AC or 1527-volts DC for 1 second. This test shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.
- Exception 1: Listed fixtures or appliances shall not be required to withstand the dielectric strength test.
- Exception 2: Units wired in Electrical Metallic Tubing or Rigid Metal Conduit.

(B) Continuity and Operational Tests and Polarity Checks. Each manufactured building shall be subjected to:

- (1) An electrical continuity test to ensure that all exposed electrically conductive parts are properly bonded;
- (2) An electrical operational test to demonstrate that all equipment, except water heaters and electric furnaces, is connected and in working order; and
- (3) Electrical polarity checks of permanently wired equipment and receptacle outlets to determine that connections have been properly made.

These tests shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.

3. Article 320.23(A). Add a new sentence at the end:

Substantial guard strips shall be provided to protect wiring within three (3) feet of the marriage line where the attic is exposed and the roof is completed on-site, such as a hinged roof. See Article 320.23(A)

**ATTACHMENT "A"**  
**DEGREE DAYS AND DESIGN TEMPERATURES**  
**FOR COLORADO CITIES AND TOWNS**

Location		Heating Degree Days	Design Temperatures°F			Elevation (feet) above sea
			Winter 97½%	Summer		
				DB 2½%	WB 2½%	
1	Alamosa	8749	-16	82	61	7546
2	Aspen	9922	-1	81	59	7928
3	Boulder	5554	2*	91	63	5385
4	Buena Vista	8003	-1	83	58	7954
5	Burlington	6320	2	95	70	4165
6	Canon City	4987	8	90	64	5343
7	Cheyenne Wells	5925	1	97	70	4250
8	Colorado Springs	6415	2	88	62	6012
9	Cortez	6667	5	88	63	6177
10	Craig	8403	-14	86	61	6280
11	Creede	11375	-18	80	58	8842
12	Del Norte	7980	-4	81	60	7884
13	Delta	5927	6	95	62	4961
14	Denver	6020	1	91	63	5283
15	Dillon	11218	-16	77	58	9065
16	Dove Creek	7401	-6	86	63	6843
17	Durango	6911	4	87	63	6550
18	Eagle	8106	-11	87	62	6600
19	Estes Park	7944	-7	79	58	7525

Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2006 IPC appendix D).

Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)

\* Per Local. 8° per 1985 ASHRAE

**DEGREE DAYS AND DESIGN TEMPERATURES  
FOR COLORADO CITIES AND TOWNS**

		Location	Heating Degree Days	Design Temperatures°F			Elevation (feet) above sea
				Winter 97½%	Summer DB 2½%	WB 2½%	
1397	20	Ft. Collins	6368	-4	91	63	5001
1398	21	Ft. Morgan	6460	-5	92	65	4321
1399	22	Fraser	9777	-22	76	58	8560
1400	23	Glenwood Springs	7313	5	91	63	5823
1401	24	Granby	9316	-	---	---	7935
1402	25	Grand Junction	5548	7	94	63	4586
1403	26	Greeley	6306	-5	94	64	4648
1404	27	Gunnison	10516	-17	83	59	7664
1405	28	Holyoke	6583	-2	97	69	3746
1406	29	Idaho Springs	8094	0	81	59	7555
1407	30	Julesburg	6447	-3	98	69	3469
1408	31	Kit Carson	6372	-1	98	68	4284
1409	32	Kremmling	10095	-19	85	59	7359
1410	33	La Junta	5263	3	98	70	4066
1411	34	Lamar	5414	0	98	71	3635
1412	35	Last Chance	-----	-2	92	65	4790
1413	36	Leadville	11500	-4	81	55	10,152
1414	37	Limon	6961	0	91	65	5366
1415	38	Longmont	6443	-2	91	64	4950
1416	39	Meeker	8658	-6	87	61	6347
1417	40	Montrose	6383	7	91	61	5830
1418	41	Ouray	7639	7	83	59	4695

1419

1420 Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky  
 1421 Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals  
 1422 Handbook (See 2006 IPC appendix D).

1423 Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)

**DEGREE DAYS AND DESIGN TEMPERATURES  
FOR COLORADO CITIES AND TOWNS**

		Heating	Design Temperatures°F			Elevation
Location		Degree Days	Winter	Summer		(feet)
			97½%	DB 2½%	WB 2½%	above sea
42	Pagosa Springs	8548	-9	85	61	7079
43	Pueblo	5413	0	95	66	4695
44	Rangely	7328	-8	93	62	5250
45	Rifle	6881	0	92	63	5345
46	Saguache	8781	-3	82	61	7697
47	Salida	7355	-3	84	59	7050
48	San Luis	8759	-10	84	60	7990
49	Silverton	11064	-13	77	56	9322
50	Springfield	5167	3	95	71	4410
51	Steamboat Springs	9779	-16	84	61	6770
52	Sterling	6541	-2	93	66	3939
53	Trinidad	5339	3	91	65	6025
54	Uravan	-----	8	97	63	5010
55	Vail	9248	-14	78	59	8150
56	Walden	10378	-17	79	58	8099
57	Walsenburg	5438	1	90	63	6220
58	Wray	6160	-1	95	69	3560
59	Yuma	5890	-2	95	69	4125

Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2006 IPC appendix D).  
Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)



## **RULES AND REGULATIONS**

### **Section 1: SCOPE**

Every Factory-Built Nonresidential Structure manufactured after the effective date of these regulations that is manufactured, sold, offered for sale, or occupied in this state must display an insignia issued by the Division of Housing certifying that the unit is constructed in compliance with the standards adopted in schedule "B" which is incorporated herein and made a part of these Rules and Regulations by reference, and all other requirements set forth by this resolution.

The Housing Board states that the Program Manager, Housing Technology and Standards Section, Colorado Division of Housing, 1313 Sherman Street, Room 321, Denver, Colorado 80203, will provide information regarding how the codes adopted in Schedule "B" may be obtained or examined. Homes constructed under Schedule "B" do not include units built to the Federal Manufactured Home Construction and Safety Standards (HUD Standards). Incorporated material may also be examined at any state publications depository library.

### **Section 2: DEFINITIONS**

"ADMINISTRATIVE AGENCY" is the Colorado Division of Housing. The Division of Housing is the state agency responsible for enforcing the Factory-Built Nonresidential Construction Statutes, Rules, and Regulations.

"ALTERNATIVE CONSTRUCTION (AC)" is specific additional construction and/or modification of the factory-built structure that directly affects the life, health, safety, and/or habitability of the structure and is not covered by the factory-built or installation certification insignias and requires inspection(s) to verify code compliance.

"AUTHORIZED INSPECTION AGENCY" means the Division of Housing or any state agency, Colorado local jurisdiction, firm, corporation or entity approved by the Division of Housing to conduct production inspections, to evaluate the manufacturer's quality control procedures, approve manufacturer's engineering manuals,, and approve factory-built model construction plans. Authorized Inspection Agencies will be "Registered" based on qualifications and "Certified" based on qualifications and performance.

"CONSTRUCTION, CLOSED" means any building, building component, assembly, or system manufactured in such a manner that all concealed parts or processes of manufacture cannot be inspected before installation at the building site without disassembly, damage, or destruction.



“CONSTRUCTION, OPEN” means any building, building component, assembly, or system manufactured in such a manner that all concealed parts or processes of manufacture can be readily inspected at the building site without disassembly, damage, or destruction.

"FACTORY-BUILT NONRESIDENTIAL STRUCTURE" is a unit or component thereof, built in compliance to the applicable of codes listed in Schedule “B”. These units are designed primarily for commercial, industrial, or other nonresidential use, either permanent or temporary (as determined by the local building department), which is wholly or in substantial part, made, fabricated, formed or assembled as Closed Construction in a manufacturing facility for installation, or assembly and installation, on permanent or temporary foundations at the building site.

"INSIGNIA" means a seal, label or tag issued by the Division of Housing to indicate compliance in the manufacture of a unit with the regulations established by the Housing Board when affixed to a Unit in conformance with this Resolution. All nonresidential structures manufactured after December 2, 1991, must display a Division of Housing insignia.

"INTERIM CHANGE" is a change made between the approval date and the expiration date.

“MANUFACTURER” means any person who constructs or assembles a manufactured residential or nonresidential structure in a factory or other off-site location. Manufacturers will be “Registered” based on the qualifications of quality control and “Certified” based on the performance of quality control.

"MODEL" is a specific design of factory-built units designed by the manufacturer, which is based on size, floor plan, method of construction, location arrangement and sizing of plumbing, mechanical or electrical equipment and systems therein in accordance with plans submitted to the Division of Housing.

“OCCUPIED” means a factory-built structure designed, built, modified, and/or used with the intent for individuals to enter.

“PRODUCTION INSPECTION” means the evaluation of the ability of the manufacturing facility to follow approved plans, standards, codes and quality control procedures during continuing production.

"PROHIBITED SALE NOTICE" means a printed notification issued by the Division of Housing for a structure providing that the unit may not be sold or offered for sale because of nonconformance(s) with §24-32-Part 33 C.R.S., as amended and these regulations.

“QUALITY CONTROL PROCEDURES” means procedures prepared by a manufacturer for each of its manufacturing facilities and approved by the Division of Housing or Authorized Inspection Agency describing the method that the manufacturer uses to assure units produced by that manufacturer are in conformance with the applicable standards, codes, quality control procedures and approved plans.

"A RED TAG NOTICE" is a physical identification that a particular unit has a life threatening violation as set forth in §24-32-3302 (14). Units with life threatening deviations shall not be sold or offered for sale in Colorado.

“UNIT” or “STRUCTURE” means a factory-built nonresidential structure that shall comply with these rules and regulations

### **Section 3: PROGRAM PARTICIPANTS**

#### **Other States**

This program is open on a voluntary basis to all states with statutory authority to regulate the design and construction of Factory Built Nonresidential Structures covered by this Division of Housing Resolution.

Each state that wishes to participate in this program recognizes that they must enter into a memorandum of understanding with Colorado to establish mutual recognition and acceptance of codes and inspections. Areas of agreement include:

- ? Acceptance of construction codes that are adopted by the State of Colorado Housing Board for Factory Built Nonresidential Structures units sold into or offered for sale in Colorado. (See Schedule “B” in this Resolution).

- ? Acceptance of the design evaluation and approval performed by the Division of Housing or uthorized nspection gency for units sold into or offered for sale in Colorado.

- ? Performance of plant certifications and other inspection requirements. Routine inspections include performing inspections of at least one (1) unit in each phase of manufacturing and performing a minimum of a rough, final and other inspections and/or tests (as required in Schedule “B”) when a production line process is not being utilized. Also to place the manufacturer on a higher frequency of inspection when it is unable to conform, on a continuing basis, to approved quality control procedures and or approved plans and standards.

? Evaluation, at the manufacturing facility, of code compliance problems resulting from consumer complaints on labeled Colorado units; work with the manufacturer(s) in resolving such complaints by adequately following-up and assisting them in correcting the complaint issue(s), and their production and/or inspection process.

? Provide sixty (60) days notice before withdrawing from participation in the program, thereby allowing a manufacturer sufficient time to obtain a new Authorized Inspection Agency.

*PARTICIPATING STATES OPERATING UNDER AN EXISTING STATE FACTORY BUILT NONRESIDENTIAL LAW HAVE THE OPTION TO ACT AS THE AUTHORIZED INSPECTION AGENCY WITHIN THEIR STATE.* They are not required to change any of their state fees, laws, or regulations other than those changes, which may be necessary to allow them to agree to the above items. Manufacturers are required to be inspected by their host state when this state agrees to perform inspections on Colorado units.

#### **Independent Authorized Inspection Agencies**

This program is open on a voluntary basis to all Division approved independent Authorized Inspection Agencies with the capabilities to regulate the design and construction of Factory Built Nonresidential Structures covered by this Division of Housing Resolution.

Each independent Authorized Inspection Agency that wishes to participate in this program recognizes that they must be approved by the Division and establish mutual recognition and acceptance of codes and inspections. Areas of agreement include:

? Acceptance of construction codes that are adopted by the State of Colorado Housing Board for Factory Built Nonresidential Structures sold into or offered for sale in Colorado. (See Schedule "B" in this Resolution).

? Acceptance of the design evaluation and approval performed by the Division of Housing or authorized inspection agency for units sold into or offered for sale in Colorado.

. Acceptance and use of the Division of Housing "Performance Criteria for Monitoring the In-Plant Quality Control Systems of Factory Built Plant" for in-plant inspection agencies.

. Acceptance and use of the Division of Housing “Performance Criteria for Factory Built Plan Review and Approval” standards for plan review agencies.

? Performance of plant certifications and other inspection requirements. Routine inspections include performing inspections of at least one (1) unit in each phase of manufacturing and performing a minimum of a rough, final and other or inspections and/or tests (as required in Schedule “B”) when a production line process is not being utilized. Also to place the manufacturer on a higher frequency of inspection when it is unable to conform, on a continuing basis, to approved quality control procedures and or approved plans and standards.

? Performance of inspection requirements. Routine inspections include performing inspections of at least a minimum of a rough, final and/or other inspections and/or tests of Alternative Construction. Also to notify the Division when a manufacturer is unable to conform, on a continuing basis, to approved plans, standards, and/or make appropriate corrections to construction code compliance issues.

? Evaluation, at the manufacturing facility, of code compliance problems resulting from consumer complaints on labeled Colorado units; work with the manufacturer(s) in resolving such complaints by adequately following-up and assisting them in correcting the complaint issue(s) and their production and/or inspection process.

? Provide sixty (60) days notice before withdrawing from participation in the program, thereby allowing a manufacturer sufficient time to obtain a new Authorized Inspection Agency.

*PARTICIPATING INDEPENDENT INSPECTION AGENCIES OPERATING UNDER AN EXISTING CONTRACT WITH A MANUFACTURER OR LOCAL JURISDICTION WILL ACT AS THE SOLE AUTHORIZED INSPECTION AGENCY FOR THAT PLANT AND/OR LOCAL JURISDICTION.* They are not required to change any of their company policies other than those changes, which may be necessary to allow them to agree to the above items. Manufacturers are required to be inspected by their contracted independent Authorized Inspection Agency when approved by the Division.

341 **Manufacturers**

342  
343 Any manufacturer of Factory Built Nonresidential Structures that are sold into, offered  
344 for sale, and/or occupied in Colorado shall participate in this program and agree to  
345 comply with the following:  
346

347 ? All manufacturing facilities may have only one Authorized Inspection Agency for  
348 plan review and one Authorized Inspection Agency for inspections that is not the  
349 Division of Housing  
350

351 ? All in-state manufacturers shall have the option to contract with an Authorized  
352 Inspection Agency or continue to use the Division of Housing as the  
353 Authorized Inspection Agency to perform certifications, in-plant production  
354 inspections, to evaluate their plant's quality control procedures, approve  
355 manufacturer engineering manuals, and/or approve plant construction plans.  
356

357 ? Out of state manufacturers are required to obtain the services of an Authorized  
358 Inspection Agency to perform certifications, in-plant production  
359 inspections, to evaluate the plant's quality control procedures , and may use  
360 the Authorized Inspection Agency to approve manufacturer engineering  
361 manuals, and/or approve plant construction plans.  
362

363 ? Out of state manufacturers located in states that have reciprocity or other  
364 agreements with the Division of Housing shall be notified if the state in  
365 which they are located will continue to inspect Colorado units or if they  
366 have to obtain the services of a firm or corporation to perform certification  
367 and in plant production inspections of Colorado units.  
368

369 ? After notification that the state in which they are located will no longer inspect  
370 Colorado units, manufacturers have (60) days to obtain another Authorized  
371 Inspection Agency.  
372

373 ? Out of state manufacturers without existing plant certifications and located in  
374 states that enter into an agreement with Colorado to inspect Colorado units,  
375 shall use that state as the Authorized Inspection Agency to perform  
376 certifications, in-plant production inspections and evaluations of their  
377 quality control procedures.  
378

379 ? All manufacturers shall obtain prior approval from the Division of Housing or  
380 Authorized Inspection Agency for all quality control manuals and plans

381 *before manufacturing and affixing the Colorado and Authorized Inspection*  
382 *Agency label(s) to units constructed under those approvals.*  
383

384 ? All manufacturers shall allow and pay for the reasonable costs incurred by the  
385 Division of Housing for work related to retaining and evaluating their  
386 performance and registration/certification status.  
387

388 ? All manufacturers shall allow and pay for oversight inspections as required by the  
389 Division of Housing or Authorized Inspection Agency to assure compliance  
390 to the approved designs.  
391

392 ? All manufacturers shall permit Division of Housing or Authorized Inspection  
393 Agency monitoring personnel to review plans and to perform in plant and/or  
394 field inspections.  
395

396 ? All manufacturers shall correct any code violations in plans discovered by the  
397 Division of Housing or by the Authorized Inspection Agency monitoring  
398 personnel, or forfeit the right to have Division of Housing and Authorized  
399 Inspection Agency labels affixed.  
400

401 ? All manufacturers shall correct any construction code violations within 20-days,  
402 or forfeit the right to have Division of Housing labels affixed.  
403

404 ? All manufacturers must provide the Division of Housing with a monthly  
405 inspection report showing the Authorized Inspection Agency and the  
406 Division of Housing label number(s), unit serial number(s), and the first  
407 destination of shipped Units.  
408

409 ? All manufacturers shall submit a fully completed and legible oversight  
410 inspection data sheet to the Division prior to shipment of the Unit from the  
411 factory.  
412

### 413 **Manufacturer Registration, Certification, and Performance Requirements**

414

415 Manufacturers of Factory Built Nonresidential Structures that are manufactured, sold  
416 into, offered for sale, and/or occupied in the State of Colorado must register with the  
417 Division of Housing. Registrations are for a specific plant location, and are not  
418 transferable to any other locations including those of the same manufacturer.  
419

420 Where there is a change in ownership, address, or location of manufacture, the  
421 manufacturer having Division of Housing certification shall notify the Division of

Housing within ten (10) working days of such a change. At such time the Division of Housing shall review the performance of the manufacturer and transfer or revoke the certification.

Plant certification is granted to a manufacturer's registered plant, based on adequate plant production performance, for a specific location, and is not transferable to other locations. Plant certification is a certification of the plant Quality Control (QC) program and the quality control personnel that ensures construction code compliance. The Division shall be immediately notified of any changes to the QC program and/or personnel.

The manufacturer's quality control department shall do "no cover" inspections for all phases of construction on all units and witness all required tests, regardless of plant status.

At the time of plan submittal, *all* manufacturers are required to have Division of Housing approval, in writing, of the state, firm, corporation or entity that will conduct the certification and in-plant inspections of Colorado units. Additionally, manufacturers are also required to request approval of the Division of Housing thirty (30) days prior to any subsequent change of their Authorized Inspection Agency.

Upon Division of Housing approval of the Authorized Inspection Agency for production inspections, approved copies of the plans and quality assurance manual shall be sent to the manufacturer. Upon the manufacturer's receipt of the approved plans and manual, the Authorized Inspection Agency shall schedule plant production oversight inspections.

Registered plants shall be inspected for certification approval on an ongoing basis. Upon completion of certification inspections, a letter recommending plant certification and a copy of the certification inspection report shall be faxed by the Authorized Inspection Agency to the Division of Housing with a copy to the manufacturer. Upon receipt of this report, the Division of Housing will review it for completeness and accuracy. The manufacturer can then ship the certification unit(s) to Colorado for field inspection by the Division of Housing. After field inspection, the Division of Housing will notify the manufacturer if the unit has passed inspection and if the plant is certified or not certified.

Manufacturers are required to construct, on a continuing basis, Factory Built Nonresidential Structures in conformance with plans, quality control manual, codes, standards, and procedures prepared by them and approved by the Division of Housing or Authorized Inspection Agency. The certification of a plant is considered to be ongoing unless conditions warrant immediate removal of the certification. Conditions for removal of certification are:

? The change of an Authorized Inspection Agency or change in Authorized Inspection Agency status.

? The change of a plant location.

? Where a plant has had Division of Housing and/or Authorized Inspection Agency labels removed by the Authorized Inspection Agency pursuant to the Division of Housing procedures.

. Less than six Colorado certified Factory Built Nonresidential Structures produced in a calendar year.

Manufacturers demonstrating that they cannot perform within their approvals shall be placed on a higher frequency of inspection until their performance improves. If their performance does not improve, the manufacturer may have their Division of Housing certification status revoked.

In accordance with C.R.S. 24-32-3307, the State Director of Housing may pursue injunctive relief against manufacturers that fail to construct units in accordance with their approved plans and quality control manual, fail to correct code violations, fail to comply with C.R.S. 24-32-Part 33, or fail to comply with these rules.

### **Manufacturer Certification Status**

The initial plant certification will last until the end of the current plant registration period. The ongoing plant certification period is one year. Each manufacturer is required to resubmit their quality control manual (and when applicable, plans) for approval prior to the registration/certification expiration date that is stamped on the quality control manual. This shall be complied with regardless of when plans are approved or homes shipped. Failure to comply with this requirement shall result in the plant having to comply with the initial registration/certification inspection requirements.

When a licensed professional stamps and signs plans or calculations, the same professional or the agency the professional works for, may not review and approve the plans for construction.



499  
500 **Section 4: AUTHORIZED INSPECTION AGENCIES**  
501

502 **Authorized Inspection Agency Approval**  
503

504 All manufacturers that use an Authorized Inspection Agency to perform production  
505 inspections, evaluate quality control procedures, approve engineering manuals, and/or  
506 approve plans, shall have such agency, other than states, request approval from the  
507 Division of Housing as an inspection agency for the State of Colorado. Request from  
508 firms, corporations or other entities shall contain the following minimum requirements:  
509

- 510 ? Name and address of agency making application.  
511  
512 ? Categories for which agency seeks approval.  
513  
514 ? A list of key personnel, with resumes, indicating their primary functions or duties.  
515  
516 ? The number of years the agency has actively engaged in the business for which  
517 they seek approval.  
518  
519 ? A statement by the agency that it will adhere to all the requirements of the  
520 Division of Housing.  
521  
522 ? An explanation of the agency plan review, plant certification, and/or inspection  
523 procedures, including copies of the quality assurance and other inspection  
524 reports.  
525  
526 . A copy of the agencies ICC IAS or other Division approved accreditation  
527 certificate as required.  
528  
529 . A copy of the Colorado professional Engineer or Architect certification for and  
530 employee that will be responsible for plan review and approval work as  
531 required.  
532  
533 . A copy of the Colorado professional license and/or International Code Council  
534 (ICC) inspector certifications for all personnel that will be performing in-  
535 plant and/or field inspections as required.  
536  
537 ? Agree to furnish any other information that the Division of Housing may deem  
538 necessary in order to properly evaluate and grant approval.  
539

? A statement that the submitting firm, corporation or entity is independent and does not have any actual or potential conflict of interest and is not affiliated with, influenced by, or controlled by any present or potential client manufacturer in any manner which might effect its capacity to render service or reports of findings objectively and without bias.

? The request must contain the signature of a responsible officer, owner, or partner of the submitting agency.

? A list of the factory built nonresidential manufacturers that are currently inspected.

Authorized Inspection Agencies may only work in the specific categories for which the Division of Housing has granted approval in writing.

#### **Authorized Inspection Agency Qualifications**

An Authorized Inspection Agency shall have the following requirements. Any exceptions shall have prior approval by the Division of Housing.

? States - Must have existing statutory authority to regulate the design and construction of Factory Built Housing.

- Must also enter into a memorandum of understanding with Colorado.

? Units of Local Government - Must have existing authority to adopt and regulate building and construction codes.

- Must adopt a Division approved local ordinance or resolution.

? Firms, corporations or other entities - Must currently be listed with a national listing agency such as the ICC International Accreditation Service or other Division approved agency.

After reviewing the request, the Division of Housing will notify the requesting firm, corporation or entity of their acceptance or denial as an Approved Inspection Agency for Colorado.

581 **Authorized Inspection Agency Quality Control and Reporting Requirements**

582  
583 Authorized Inspection Agencies shall conduct certifications, in-plant production  
584 inspections, in-plant evaluations of the plant's quality control procedures, review  
585 manufacturer engineering manuals, approve plant construction plans, and/or perform  
586 Alternative Construction field inspections, in accordance with Division of Housing  
587 approved procedures and documents.

588  
589 The structure will be inspected to the approved plans, except where the plans are not  
590 specific, and then the inspection shall be to the standards. The Authorized Inspection  
591 Agency will also monitor the plant personnel performing the construction, testing, and  
592 inspections.

593  
594 An Authorized Inspection Agency, when a plant is not certified, shall conduct a  
595 minimum of a rough, final, and other inspections as required per code (see Schedule "B")  
596 for all units manufactured.

597  
598 The Authorized Inspection Agency shall notify the Division in writing when it is satisfied  
599 that the manufacturer is capable of consistently manufacturing units to the approved plans  
600 and codes. Upon successful completion of certification inspections, a letter  
601 recommending plant certification and a copy of the certification inspection report shall be  
602 faxed by the Authorized Inspection Agency to the Division of Housing with a copy to the  
603 manufacturer. Upon receipt of this report, the Division of Housing will review it for  
604 completeness and accuracy. The manufacturer can then ship the certification unit(s) to  
605 Colorado for field inspection by the Division of Housing. After field inspection, the  
606 Division of Housing will notify the manufacturer if the unit has passed inspection and if  
607 the plant is certified or not certified.

608  
609 After the Division approves certified status for a plant, a minimum of one (1) phase of  
610 construction for each unit being produced for Colorado shall be inspected by the  
611 Authorized Inspection Agency. In the course of each visit, the inspector shall also make  
612 a complete inspection of every phase of production, systems testing, and of every unit in  
613 production as well as a random sampling of finished product on site.

614  
615 Whenever the Authorized Inspection Agency finds that a manufacturer is unwilling or  
616 unable to conform on a continuing basis to the approved quality control procedures,  
617 and/or approved plans or standards, that manufacturing facility shall be placed on a  
618 higher frequency of inspection. The Division of Housing shall be notified and the  
619 certification labels held until the manufacturer demonstrates that they can perform within  
620 their approvals. If after three consecutive inspections, the last inspection still indicates  
621 that the manufacturer is not able to perform within their approvals or standards, all

622 remaining insignias paid for by the manufacturer will be returned to the Division of  
623 Housing and no further insignias issued until problems are resolved. The Authorized  
624 Inspection Agency shall notify the Division of Housing of the action(s) taken.  
625

626 Additional information, such as increased frequency and routine quality assurance  
627 inspection reports, will be requested by the Division of Housing in order to review the  
628 inspections conducted on specific units.  
629

630 The Authorized Inspection Agency is required to provide its own inspection label so that  
631 it, also, can be affixed adjacent to the Colorado certification label to each unit shipped to  
632 Colorado.  
633

#### 634 **Division of Housing Monitoring of Authorized Inspection Agencies** 635

636 The performance of all Authorized Inspection Agencies shall be monitored by Division  
637 of Housing to determine if they are fulfilling their responsibilities as required under this  
638 program.  
639

640 The monitoring activities carried out by the Division of Housing staff shall consist of:  
641

- 642 ? Performing oversight inspections on nonresidential structures that are shipped to  
643 Colorado. The purpose of these certification and other inspections are to  
644 evaluate the performance of the manufacturer and inspection agency in  
645 ensuring the selected units comply with approved plans and construction  
646 codes.  
647

648 Based upon finding(s) of inadequate performance, the frequency of  
649 inspections may be increased as determined by the Division of Housing  
650 procedures.  
651

- 652 ? Reviewing all records of interpretations of the standards made by the Authorized  
653 Inspection Agency to determine whether they are consistent and proper.  
654

- 655 ? Reviewing inspection reports, records and other documents to assure that  
656 Authorized Inspection Agencies are carrying out all their responsibilities as  
657 set forth in the Division of Housing requirements.  
658

- 659 ? Reviewing records to assure that the Authorized Inspection Agency is maintaining  
660 proper label control and records pursuant to the requirements of this  
661 program.  
662

663 **Frequency of Monitoring**

664  
665 An approved Authorized Inspection Agency shall be periodically monitored. Every  
666 aspect of all actions of the Authorized Inspection Agencies shall be reviewed at a  
667 frequency adequate to assure that they are performing consistently to the Division of  
668 Housing requirements.

669  
670 **Resolution of Code Interpretation Conflicts**

671  
672 The Division of Housing will, upon written request, investigate complaints related to  
673 adopted construction code interpretation and enforcement. A written request must  
674 identify the Authorized Inspection Agency, the location of the structure(s) in question,  
675 the nature of the dispute, the code section reference, and all involved parties with contact  
676 information. Upon receipt of the request, the Division will contact all parties for a  
677 written response to the issues. After any necessary follow-up, the Division will issue an  
678 interpretation to resolve the code dispute to all parties. The Division's interpretation may  
679 be appealed to the Colorado State Housing Board Technical Advisory Committee. The  
680 decision of the committee is final.

681  
682 **Section 5: MANUFACTURER APPLICATION AND PLAN SUBMITTAL**

683  
684 All manufacturers shall obtain prior approval of each set of designs from the Division of  
685 Housing or Authorized Inspection Agency before manufacturing and affixing the  
686 Colorado and Authorized Inspection Agency label(s) to unit(s) constructed under those  
687 plans.

688  
689 Applications to the Division shall be made on forms supplied by the Division of Housing  
690 and shall be accompanied by the appropriate fees from Schedule "A" which is  
691 incorporated herein and made a part of these Rules and Regulations by reference.

692  
693 Submittal for approval of quality control manuals and model plans shall meet or exceed  
694 the minimum requirements as specified by the Division of Housing.

695  
696 All applications submitted shall be signed by an officer of the manufacturer that is in a  
697 responsible position with the authority to commit manufacturers to comply with the rules  
698 and regulations that govern the Colorado Factory Built Housing Construction Program.

699  
700 The Division of Housing will grant or deny approval within twenty (20) working days of  
701 the receipt of a complete submittal with the appropriate fee and with the required number  
702 of copies.  
703

If a submittal is not completed within one hundred twenty days of the initial application date, the application shall expire and all fees shall be forfeited.

Expired applications must be resubmitted as new applications with new application forms, submittals and fees.

Approved plans and quality control manuals shall be evidenced by the stamp of approval of the Division of Housing or Authorized Inspection Agency. One approved copy shall be returned to the manufacturer and shall be retained at the place of manufacture. An approved copy shall be retained by the approving agency. Authorized Inspection Agencies shall send an additional approved copy to be kept on file with the Division of Housing. Interim changes, additions, or deletions will not be acceptable without prior approval of the agency that originally approved the plans.

All units, which are manufactured, sold, or offered for sale in the State of Colorado must display the Division of Housing and Authorized Inspection Agency insignias if applicable. These insignias certify that the unit is constructed in compliance with applicable codes and regulations adopted by the State Housing Board.

The granting of plan approval shall not be construed to be a permit or approval of any violation of the provisions of these regulations. All structures shall be subject to Division of Housing or Authorized Inspection Agency field inspection. The approval of the plans shall not prevent the Division of Housing or the Authorized Inspection Agency from requiring the correction of errors found in the plans or the unit itself, when found in violation of these regulations.

Approved copies of the quality control manual and plans shall be kept on file within the plant of manufacture for the purpose of construction and inspection by Division of Housing inspectors or the Approved Inspection Agency.

Plan approvals are granted to a manufacturer for a specific plant location and are not transferable to other locations including those of the same manufacturer.

Interim plan change approvals shall be required where the manufacturer proposes a change in structural, plumbing, heating, electrical, and/or fire life safety systems. Such changes shall become part of the approved plan unless the Division of Housing determines that the change constitutes a new model. If determined a new model, the interim change shall be processed as a new application. The difference in fees will be assessed.

The Division will approve unchanged plan renewals, previously approved by the Division, provided there has been no change in adopted codes and the plant General Manager certifies in writing that the plans are identical to those previously approved. The “Supplemental plan check fee” will apply. Should it be determined by the Division that plan changes have been made, the manufacturer will be subject to a Red Tag fee for every unit built to the changed plans and will conduct an investigation to ensure the code compliance of the units built.

When amendments to these regulations require changes to be made to an approved plan, the Division of Housing shall notify the manufacturer of the requirement and shall allow the manufacturer a reasonable time to submit revised plans for approval. Revised plans shall be processed as interim changes with the appropriate fees assessed.

Some building departments require a set of prints with the Colorado approval stamp. This can be addressed by requesting that additional prints be approved and provided to the Division at the time of original application. Appropriate fees must accompany requests for more than three approved plan sets. The Division will provide a Plan Submittal Checklist upon request.

#### **Authorized Inspection Agency Plan Approval**

Manufacturer’s may, at their expense, use an Authorized Inspection Agency that has been approved by the Division for plan review and approval. Reference Section 4 of these Rules and Regulations.

### **Section 6: PLANT/PLAN/QUALITY CONTROL REGISTRATION/CERTIFICATION EXPIRATION DATE**

The initial plant certification will last for the existing plant registration period. Each manufacturer is required to resubmit their quality control manual (and when applicable, plans) for approval prior to the registration/certification expiration date that is stamped on the quality control manual. Failure to comply with this requirement shall result in the plant having to comply with the initial registration/certification inspection requirements.

*The certification expiration date for all plants is determined by the expiration date that is stamped on the quality control manual. Plans that are submitted at the time of certification and/or within the certification period shall have the same certification expiration date as the quality control manual.*

It shall be the responsibility of the manufacturer to submit to the Division of Housing or Authorized Inspection Agency an application for plan and quality control manual approval thirty (30) days prior to the expiration date.

#### **Section 7: PLANT PRODUCTION AND INSPECTION FEES**

The Division of Housing and/or the Authorized Inspection Agency shall conduct certification and production inspections of all manufacturers engaged in the manufacturing or offering for sale of Factory-Built Nonresidential Structures in the State of Colorado. This inspection shall include the quality control program and systems testing.

? The fees for Division of Housing inspections are shown in Schedule "A".

? The cost of Division of Housing inspections are not refundable.

At the time of initial certification and upon each request to renew certification, all manufacturers must submit a copy of I. R. S. Form W-9 (request for taxpayer identification number and certification) to the Division of Housing.

#### **Section 8: POSTED UNITS**

Whenever an inspection reveals that a unit fails to comply with any provision of these rules and regulations, the Division of Housing or the Authorized Inspection Agency may post such a unit with a Prohibited Sale Notice/Red Tag Notice.

##### **Prohibited Sale Notice**

When a unit is posted with a Prohibited Sale Notice, the Division of Housing or the Authorized Inspection Agency will notify the affected parties that the structure contains a violation(s). The affected parties must resolve the prohibited sale issues with the agency that posted the unit.

? A unit posted with a Prohibited Sale Notice, shall not be sold or offered for sale in the State of Colorado, nor shall the unit be moved or caused to be moved without the prior written approval of the Division of Housing or Authorized Inspection Agency.

? Within five (5) working days, the affected parties or their agents shall notify, in writing, the Division of Housing or the Authorized Inspection Agency of the action taken to correct the violation(s) and what steps have been taken by



management to preclude the recurrence of the violation(s). Failure to respond within five (5) days may cause revocation of an affected parties status.

? All units posted with a Prohibited Sale Notice shall be corrected or removed from the state (with prior written approval of the Division of Housing or Authorized Inspection Agency). All units that are corrected shall be reinspected to assure compliance with the codes and regulations. A reinspection fee will be assessed.

### **Red Tag Notice**

A Red Tag Notice is a physical identification that a particular unit has a life threatening violation. When a unit is posted with a Red Tag Notice, the Division of Housing or the Authorized Inspection Agency inspector will notify the affected parties that the unit contains a life threatening violation(s). The affected parties must resolve the Red Tag issue(s) with the agency that posted the unit.

? A unit posted with a Red Tag Notice shall not be sold or offered for sale in the State of Colorado.

? All units that are corrected shall be reinspected to assure compliance with the codes and regulations. A reinspection fee will be assessed.

Prohibited Sale Notices/Red Tag Notices shall be removed only by an authorized representative of the Division of Housing or Authorized Inspection Agency.

## **Section 9: REVOCATION OF PLANT CERTIFICATIONS**

The Housing Board may revoke a plant certification after notice and hearing pursuant to Section 24-4-104 & 24-4-105, C.R.S., whenever a manufacturer has violated any provision of these regulations or when a plant certification was granted in error, on the basis of incorrect information supplied by the applicant.

Judicial review of plant certification revocation actions shall be governed by Section 24-4-106, C.R.S.

**Section 10: DENIAL OF PLANT REGISTRATION/CERTIFICATION**

The Division of Housing may deny an application for plant registration, certification, or re-certification if an applicant manufactures any unit in violation of approved plans or these rules and regulations. In addition, as a condition of registration, certification, or re-certification, the Division of Housing may impose any of the following conditions for registration, certification, or re-certification:

- ? Revision of the manufacturer's Quality Control Program.
- ? Identification by model and serial number of each unit to be offered for sale in Colorado.
- ? Inspection of each unit prior to affixing certification insignias.
- ? Inspection of the manufacturer's plant (with the cost of inspection borne by the manufacturer).
- Resolution of previous violations and/or unpaid fees.
- ? Any combination of above or other action as determined necessary to insure future compliance with these regulations.

The Division shall promptly notify the applicant of the denial or condition imposed. The applicant may, within sixty (60) days following such action, request a hearing before the Housing Board. If requested, a hearing shall be conducted pursuant to Section 24-4-105, C.R.S. Thereafter, the final decision of the Housing Board shall be subject to judicial review in accordance with Section 24-4-106, C.R.S.

**Section 11: CERTIFICATION INSIGNIA APPLICATION AND REPORTS**

Registered (non-certified) and certified manufacturers must submit an application for Colorado insignias on forms provided by the Division of Housing with the appropriate fees from Schedule "A".

Insignias for registered manufacturers will be held by the Division of Housing or Certified Authorized Inspection Agency and affixed to each unit upon final inspection approval by the Division or Certified Agency.

Insignias for certified manufacturers will be mailed to the manufacturer and shall be affixed to Colorado certified units upon final approval by the manufacturer's quality control manager.

Insignias are assigned for use at a specific plant location and shall not be transferable or used on an unapproved model. Colorado certification insignias issued for one type of certification may not be used on a unit of another (different) type. A 3"x5" primary insignia, documenting manufacturer and unit design information, is required.

The primary Insignia must be permanently affixed on the exterior hitch end of the unit or in a readily visible location, such as near the electrical panel, prior to units being removed from the plant.

The manufacturer shall legibly stamp the unit serial number, date of manufacture, wind design speed, roof design load, fire rating, occupancy, and construction codes on the primary insignia.

Insignia reports shall be submitted by the manufacturer to the Division of Housing by the first of each month on forms or copies of forms supplied by the Division of Housing. An insignia report is required when the manufacturer has insignias outstanding during that period. Manufacturers are also required to provide the Division of Housing a copy of their monthly production report.

Corrected or delinquent insignia reports may be required prior to the issuance of additional insignias.

Primary Insignias are to be affixed in consecutive order.

Colorado insignias shall remain the property of the State of Colorado and may be confiscated by the Division of Housing upon any violation of this resolution. Defaced, marked in error, or voided insignias shall be returned to the Division of Housing without refund.

Colorado insignias shall be stored in a safe and secure location approved by the Division or Authorized Inspection Agency.

A Notification of Oversight Inspection Data Sheet form shall be completed and submitted to the Division of Housing prior to the shipment of every Colorado unit.

946 Factory Built Structures shall not be modified, prior to or during, installation at a site  
947 without approval from the Division of Housing.  
948  
949  
950

951 **SECTION 12: IRREGULARITIES**  
952

953 Any and all irregularities in these Rules and Regulations shall not be justification for producing  
954 any Unit without proper inspections and in violation of the adopted construction codes.  
955  
956  
957

958 6/3/09

959 ATTEST:  
960  
961

962 \_\_\_\_\_  
963 Teresa Duran, Acting Director  
964 Colorado Division of Housing  
965

\_\_\_\_\_  
Theo Gregory, Chairperson  
Colorado State Housing Board

966 \_\_\_\_\_  
967 Date

\_\_\_\_\_  
Date

**SCHEDULE "A"**  
**FEE SCHEDULE**

All fees, except inspection and oversight fees, are due in advance and must accompany the application. Fees shall not be subject to refund.

1. Annual Plant registration fee: \$250.00
2. Annual Inspection Agency registration fee: \$250.00
3. Plan checking fees (maximum 3-sets):

Finished space	\$0.25 per sq. ft. (\$160 min.)
Unfinished space	\$0.10 per sq. ft.
4. Certification insignia fee:

Primary Insignia-	\$100.00
Additional Floor Tag-	\$100.00
5. Supplemental plan check fee (revisions, duplicate sets etc.): \$0.10 per sq. ft. (\$50 min.)  
Note: Fee for revisions to be calculated based on space revised.
6. Oversight plan check fee: \$0.15 per sq. ft. (\$100 min.)
7. Waiver of fees for Government Assisted Housing; with State Housing Board concurrence, the Division of Housing may waive plan review and unit certification fees for units to be subsidized under local, state or federal housing programs for low-income households.
8. Inspection fees:
  - A. Plant certification inspection fee: \$350.00 per inspector per trip
  - B. Oversight inspection fee: \$230.00 per inspector per trip .
  - C. Special inspection fee:

In-State: \$50.00 per hour, per inspector plus trip expenses of travel, food, lodging, parking, car rental, etc. as allowed in state fiscal rules for per diem and travel.
Out of-State: \$50.00 Hour/ per inspector plus trip expenses of travel, food, lodging, parking, car rental, etc. as allowed in state fiscal rules for per diem and travel.
  - D. Prohibited Sale/Red Tag fee: \$250.00

1009 **SCHEDULE "B"**  
1010  
1011

1012 The State Housing Board adopts the following nationally recognized codes as the "Colorado  
1013 Construction Safety Code for Factory-Built Housing".  
1014  
1015

1016 **Factory-Built Nonresidential Construction Code of the State of Colorado**  
1017

1018 Shall be:  
1019

- 1020 1. The International Building Code, 2006 Edition, published by the International Code  
1021 Council, Inc.
- 1022 2. The International Residential Code, 2006 Edition, published by the International Code  
1023 Council, Inc.
- 1024 3. The International Mechanical Code, 2006 Edition, published by the International Code  
1025 Council, Inc.
- 1026 4. The International Plumbing Code, 2006 Edition, published by the International Code  
1027 Council, Inc.
- 1028 5. The National Electric Code, 2008 Edition, published by the National Fire Protection  
1029 Association, Inc.
- 1030 6. The International Fuel Gas Code, 2006 Edition, published by the International Code  
1031 Council, Inc.
- 1032 7. The International Energy Conservation Code, 2006 Edition, published by the  
1033 International Code Council, Inc. effective until June 30, 2010.
- 1034 8. The International Energy Conservation Code, 2009 Edition, published by the  
1035 International Code Council, Inc. effective July 1, 2010.  
1036

1037 Transition Period: Manufacturers shall be permitted to use the construction codes in effect prior  
1038 to the adoption of this resolution for a maximum of 90-days after this resolution takes effect.

**AMENDMENTS:**

The following amendments by addition, deletion, revision and exceptions are made:

**INTERNATIONAL BUILDING CODE:**

**Section 310, R-3, Add new sentence at the end:**

A single building or structure where 5 or less adults sleep at any time (commercial worker housing) may comply with the International Residential Code as a dwelling provided there is no mixed occupancy and there is permanently affixed signage in the immediate vicinity of sleeping rooms that states “No more than 5-adults may sleep at any time in this building”.

**Section 901.5.1 Add the following Section:**

**Special inspector required.** All fire protection systems required by this Chapter shall be inspected and approved by a special inspector. The inspector shall be an employee of the fire department having jurisdiction or another qualified individual with prior approval of the Colorado Division of Fire Safety. Inspections and approvals will be regulated under Chapter 17 of this Code.

**Section 907, Amend title to: “Single and multiple station alarms” and add subsections:**

**907.2.10.5 Carbon monoxide alarms.** In new construction, dwelling units within which fuel-fired appliances are installed or have an attached garage, shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area within 15 feet of the bedroom(s).

**907.2.10.5.1 Alarm requirements.** The required carbon monoxide alarms shall be clearly audible in all bedrooms over normal background noise levels with doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer’s installation instructions.  
UL 2034 2008 Standard for Single and Multiple Station Carbon Monoxide Alarms

**907.2.10.6 Separate circuits prohibited.** Smoke and/or Carbon Monoxide alarms shall not be installed on a circuit dedicated only for Smoke and/or Carbon Monoxide alarms.

**Section 1507.1.1, Ice Dam Membrane Required is amended to read:**

Ice dam protection is required where stated throughout Section 1507 due to a history of ice forming along eaves in Colorado. Regardless of roof slope or material, when the snow load is above sixty five pounds per square foot (65lb./sq.ft.), roofing underlayment shall be two layers of Type 15 felt applied shingle fashion and solid mopped together with approved cementing material between the plies, or 40 mil listed self adhering roofing membrane and shall be installed extending from the eave up the roof to a point 8 feet 6 inches inside the exterior wall line of the building and shall extend continuously to a point 4 feet from any valley, cricket or similar construction junctions with roofs. The ice dam membrane shall extend up vertical construction junctions such as dormer walls a minimum of twelve (12) inches prior to the installation of flashing and roof covering.

**Section 1608.2, Ground Snow Load is amended to read:**

Roof Snow Load (Pf) design criteria shall be in accordance with the local jurisdiction requirements. The minimum roof snow load shall be 30 PSF and the allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

**Section 1609.1.1. Add the Following:**

Wind Load design criteria shall be in accordance with the local jurisdiction requirements. The minimum Wind load design criteria shall be 90 MPH, Exposure C, unless otherwise justified.

**Section 2111.1.1. New Fireplaces – Add the following section:**

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs.
2. Other approved gas or alcohol specific appliances.
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.



**INTERNATIONAL RESIDENTIAL CODE:**

**Section R105.2, Work exempt from permit. Building:**

**Item #1. Change 120 square feet to 200 square feet**

**TABLE R301.2(1 ) IS AMENDED TO READ:**

ROOF SNOW LOAD <sup>1</sup>	WIND SPEED (mph) <sup>1</sup>	SEISMIC DESIGN CATEGORY	Subject to Damage From				WINTER DESIGN TEMP <sup>2</sup>	ICE BARRIER UNDERLAY MENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX <sup>3</sup>
			WEATHER	FROST LINE DEPTH <sup>a</sup>	TERMITE					
MIN. 30 psf	MIN. 90 mph, Exp. C	B	SEVERE	PER LOCAL	SLIGHT		PER LOCAL	YES	PER LOCAL	PER LOCAL

<sup>(1)</sup>The roof snow load and wind speed shall be in accordance with the local jurisdiction requirements and shall not be less than the minimums stated. The allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

<sup>(2)</sup>See Attachment A and verify with local jurisdiction..

<sup>(3)</sup>See the National Climatic Data Center data table “Air Freezing Index-USA Method (Base 32° Fahrenheit)” at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html).

**Table R301.5 – Live Loads**

...add footnote (j) to Decks, Exterior balconies, Fire escapes:

<sup>(j)</sup>When the snow load is above 65 psf, the minimum uniformly distributed live loads for exterior balconies, decks and fire escapes shall be as required for roof snow loads.

**Section 313, Amend title to: “Alarms” and add subsections:**

**R313.1.1 Carbon monoxide alarms.** In new construction, dwelling units within which fuel-fired appliances are installed or have an attached garage, shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area within 15 feet of the bedroom(s).

**R313.1.2 Alarm requirements.** The required carbon monoxide alarms shall be clearly audible in all bedrooms over normal background noise levels with doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.  
UL 2034 2008 Standard for Single and Multiple Station Carbon Monoxide Alarms

**R313.2 Add new sentence at the very end:**

Smoke and/or Carbon Monoxide alarms shall not be installed on a circuit dedicated only for Smoke and/or Carbon Monoxide alarms.

**Section R802.10 Wood trusses.**

...add new section:

**R802.10.6 Marking.** Each truss shall be legibly branded, marked, or otherwise have permanently affixed thereto the truss identification as shown on the truss design drawing located within two (2) feet of the peak of the truss on the face of the top chord.

**Section R905.1 – Roof Covering Application**

...add subsection:

**R905.1.1 Ice dam membrane required.** Ice dam protection is required, where stated throughout Section R905, due to a history of ice forming along eaves in Colorado. An ice dam protection underlayment that consists of at least two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet shall extend from the eave's edge to a point at least 24 inches inside the exterior wall line of the building. For snow loads above 65 psf, the ice dam membrane shall be extended from the eave to a point 8 feet 6 inches inside the exterior wall line, and shall extend continuously to a point 4 feet from any valley, cricket or similar construction junction with roofs. The ice dam membrane shall extend up vertical construction junctions such as dormer walls a minimum of twelve (12) inches prior to the installation of flashing and roof covering.

**Section R1004.4, G2406.2 exception 3 and 4, G2425.8 #7, G2445; Delete all and add:**

Unvented fuel fired room heaters are prohibited.

**Section R1004.5 – Fireplaces**

...add:

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs;
2. Other approved gas or alcohol specific appliances;
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) at the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

**Chapter 11 – ENERGY EFFICIENCY**

Replacement Date:

On July 1, 2010 the entire chapter is to be deleted and replaced with Chapter 11 of the 2009 International Residential Code.

...add new sentence:

**N1101.1 Scope.** An approved “Zero-Energy Building” is exempt from the provisions of this Chapter 11.

**Section M2001.1 - Installation**

...is amended to add the following sentence:

All rooms or spaces containing boilers shall be provided with a floor drain and trap primer.

**Section G2417.4.1 Test pressure**

...is amended as follows:

The test pressure to be used shall be not less than one and one half times the proposed maximum working pressure, but not less than 10 psig (69 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

**Electrical Sections**

Delete Chapters 33 through 42.

**INTERNATIONAL FUEL GAS CODE:**

**Section 303.3 Prohibited locations.**

...Add Item:

Number 6. LPG appliances. LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shutoff valve at the tank.

Delete Exception Numbers 3 and 4.

**Section 406.4.1 Test pressure.**

...amend to read:

The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. Welded gas and medium pressure piping (14 inch water column or greater) shall be tested at a minimum of 60 psi.

**Section 601.1. Scope.** Add the following sentence:

Approved and listed gas logs shall be installed in new solid fuel burning fireplaces when required by Sections 2111.1.1 of the International Building Code amended effective January 1, 2004.

**Section 621 Unvented room heaters.** Amend to read:

Unvented fuel fired room heaters are prohibited.

#### **INTERNATIONAL PLUMBING CODE:**

The following Appendix Chapters to the International Plumbing Code, 2006 Edition, are hereby adopted.

**Appendix Chapter D** – Degree Day and Design Temperatures for Cities in the United States.

**Appendix Chapter E** – Sizing of water piping systems.

No other appendix chapters are adopted.

#### **INTERNATIONAL MECHANICAL CODE:**

**Add the following Sections –**

##### **Section 303.3.1 LPG appliance.**

LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shut-off valve at the LPG tank.

##### **Section 903.1 General.** Add sentence:

Every new installation of a solid fuel-burning, vented decorative appliance or room heater shall meet the most stringent emission standards for woodstoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission as of the time of installation of the appliance for room heater. (Effective January 1, 1991 – CC90-617.)

**Section 903.3**...is amended to read as follows:

Unvented gas log heaters are prohibited.

## **INTERNATIONAL ENERGY CONSERVATION CODE**

### **Section 101.2.1 Exempt Buildings.**

...add exemption:

**101.2.1.3 Zero-Energy Buildings.** Zero energy buildings are exempt from the provisions of the International Energy Conservation Code.

### **Section 202 – Definitions**

...add definition:

**ZERO-ENERGY BUILDING.** A building with zero net energy consumption and zero carbon emissions annually as certified by an approved annual energy use analysis.

## **NATIONAL ELECTRIC CODE:**

The following amendments by addition, deletion, revision and exceptions are made to the **National Electrical Code, 2008 Edition**, for use with all Factory Built units:

1. Article 406.8(C), (1) Shower or Bathroom space. Receptacle outlet shall not be installed in or within 30 inch (762 mm) of a shower or bathtub base.
2. Article 545, Manufactured Buildings, is amended to include: 545.14. Testing.
  - (A) Dielectric Strength Test. The wiring of each factory built unit shall be subjected to a 1-minute, 900-volt AC or 1273-volt DC dielectric strength test (with all switches closed) between live parts (including neutral) and the ground. Alternatively, the test shall be permitted to be performed at 1,080–volts AC or 1527-volts DC for 1 second. This test shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.

Exception 1: Listed fixtures or appliances shall not be required to withstand the dielectric strength test.

Exception 2: Units wired in Electrical Metallic Tubing or Rigid Metal Conduit.

(B) Continuity and Operational Tests and Polarity Checks. Each manufactured building shall be subjected to:

- (1) An electrical continuity test to ensure that all exposed electrically conductive parts are properly bonded;
- (2) An electrical operational test to demonstrate that all equipment, except water heaters and electric furnaces, is connected and in working order; and
- (3) Electrical polarity checks of permanently wired equipment and receptacle outlets to determine that connections have been properly made.

These tests shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.

3. Article 320.23(A). Add a new sentence at the end:

Substantial guard strips shall be provided to protect wiring within three (3) feet of the marriage line where the attic is exposed and the roof is completed on-site, such as a hinged roof. See Article 320.23(A)

**ATTACHMENT "A"**  
**DEGREE DAYS AND DESIGN TEMPERATURES**  
**FOR COLORADO CITIES AND TOWNS**

Location		Heating Degree Days	Design Temperatures°F			Elevation (feet) above sea
			Winter 97½%	Summer		
				DB 2½%	WB 2½%	
1	Alamosa	8749	-16	82	61	7546
2	Aspen	9922	-1	81	59	7928
3	Boulder	5554	2*	91	63	5385
4	Buena Vista	8003	-1	83	58	7954
5	Burlington	6320	2	95	70	4165
6	Canon City	4987	8	90	64	5343
7	Cheyenne Wells	5925	1	97	70	4250
8	Colorado Springs	6415	2	88	62	6012
9	Cortez	6667	5	88	63	6177
10	Craig	8403	-14	86	61	6280
11	Creede	11375	-18	80	58	8842
12	Del Norte	7980	-4	81	60	7884
13	Delta	5927	6	95	62	4961
14	Denver	6020	1	91	63	5283
15	Dillon	11218	-16	77	58	9065
16	Dove Creek	7401	-6	86	63	6843
17	Durango	6911	4	87	63	6550
18	Eagle	8106	-11	87	62	6600
19	Estes Park	7944	-7	79	58	7525

Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2006 IPC appendix D).

Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)

\* Per Local. 8° per 1985 ASHRAE



**DEGREE DAYS AND DESIGN TEMPERATURES  
FOR COLORADO CITIES AND TOWNS**

			Heating	Design Temperatures°F			Elevation
			Degree Days	Winter	Summer		(feet)
				97½%	DB 2½%	WB 2½%	above sea
1418	20	Ft. Collins	6368	-4	91	63	5001
1419	21	Ft. Morgan	6460	-5	92	65	4321
1420	22	Fraser	9777	-22	76	58	8560
1421	23	Glenwood Springs	7313	5	91	63	5823
1422	24	Granby	9316	-	---	---	7935
1423	25	Grand Junction	5548	7	94	63	4586
1424	26	Greeley	6306	-5	94	64	4648
1425	27	Gunnison	10516	-17	83	59	7664
1426	28	Holyoke	6583	-2	97	69	3746
1427	29	Idaho Springs	8094	0	81	59	7555
1428	30	Julesburg	6447	-3	98	69	3469
1429	31	Kit Carson	6372	-1	98	68	4284
1430	32	Kremmling	10095	-19	85	59	7359
1431	33	La Junta	5263	3	98	70	4066
1432	34	Lamar	5414	0	98	71	3635
1433	35	Last Chance	-----	-2	92	65	4790
1434	36	Leadville	11500	-4	81	55	10,152
1435	37	Limon	6961	0	91	65	5366
1436	38	Longmont	6443	-2	91	64	4950
1437	39	Meeker	8658	-6	87	61	6347
1438	40	Montrose	6383	7	91	61	5830
1439	41	Ouray	7639	7	83	59	4695

1440

1441 Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky  
 1442 Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals  
 1443 Handbook (See 2006 IPC appendix D).

1444 Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)

**DEGREE DAYS AND DESIGN TEMPERATURES  
FOR COLORADO CITIES AND TOWNS**

		Heating	Design Temperatures°F			Elevation
Location		Degree Days	Winter	Summer		(feet)
			97½%	DB 2½%	WB 2½%	above sea
42	Pagosa Springs	8548	-9	85	61	7079
43	Pueblo	5413	0	95	66	4695
44	Rangely	7328	-8	93	62	5250
45	Rifle	6881	0	92	63	5345
46	Saguache	8781	-3	82	61	7697
47	Salida	7355	-3	84	59	7050
48	San Luis	8759	-10	84	60	7990
49	Silverton	11064	-13	77	56	9322
50	Springfield	5167	3	95	71	4410
51	Steamboat Springs	9779	-16	84	61	6770
52	Sterling	6541	-2	93	66	3939
53	Trinidad	5339	3	91	65	6025
54	Uravan	-----	8	97	63	5010
55	Vail	9248	-14	78	59	8150
56	Walden	10378	-17	79	58	8099
57	Walsenburg	5438	1	90	63	6220
58	Wray	6160	-1	95	69	3560
59	Yuma	5890	-2	95	69	4125

Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2006 IPC appendix D).  
Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)

101 **RESOLUTION #36**

102  
103 **ON-SITE CONSTRUCTION AND SAFETY CODES FOR MOTELS, HOTELS**  
104 **AND MULTI-FAMILY DWELLINGS IN THOSE AREAS OF THE STATE WHERE NO**  
105 **SUCH STANDARDS EXIST**

106  
107 **BE IT RESOLVED BY THE STATE HOUSING BOARD OF THE STATE**  
108 **OF COLORADO;**  
109

110 THAT PURSUANT TO §24-32-3301 et seq, C.R.S. as amended, the State Housing  
111 Board of the State of Colorado (the "Housing Board") repeals and readopts Resolution #36; and  
112

113 THAT PURSUANT TO §24-32-3301 et seq, C.R.S. as amended, the State Housing  
114 Board adopts the nationally recognized codes as cited in SCHEDULE "B" as the "Colorado  
115 Construction Safety Code for hotels, motels, and multi-family dwellings built in areas of the state  
116 where no such standards exist including the renovation of dwelling units that are the Division of  
117 Housing responsibility"; and  
118

119 THAT PURSUANT TO §24-32-3301 et seq, C.R.S. as amended, the State Housing  
120 Board states the basis and purpose of these rule changes is to update the current minimum  
121 construction and safety code for "hotels, motels, and multi-family dwellings in areas of the state  
122 with no local building codes"; and  
123

124 The State Housing Board states that these rules do not include later amendments to  
125 or editions of the nationally recognized code; and  
126

127 The Colorado Housing Board repeals and readopts these rules and regulations to be  
128 administered and enforced by the Colorado Division of Housing (the Division of  
129 Housing).

## **RULES AND REGULATIONS**

### **Section 1: SCOPE**

Every hotel, motel, and multi-family dwelling, in areas of the state with no local building codes, that is constructed or renovated after the effective date of these regulations must have a building permit, be inspected, and issued a certificate of occupancy by the Division of Housing, certifying that the unit is constructed in compliance with the standards adopted in Schedule "B," which is incorporated herein and made a part of these Rules and Regulations by reference, and all other requirements set forth by this resolution.

The State Housing Board states that the Program Manager, Housing Technology and Standards Section, Colorado Division of Housing, 1313 Sherman Street, Room 321, Denver, Colorado 80203, will provide information regarding how the nationally recognized code may be obtained or examined. Incorporated material may also be examined at any state public library.

### **Section 2: DEFINITIONS**

- (1) "CERTIFICATE OF OCCUPANCY" is a certificate stating at the time of issuance the structure was built in compliance with all applicable codes and construction standards as adopted by the State Housing Board.
- (2) "CORRECTION NOTICE" is a notice indicating that a structure contains non-compliance(s) to the adopted code that is not life threatening, but may require correction prior to sign off of specific inspection requested.
- (3) "EQUIPMENT" means all materials, appliances, devices, fixtures, fittings and apparatus used in the construction, plumbing, mechanical and electrical systems of a structure.
- (4) "INTERIM CHANGE" means any change made between the approval date and the expiration date.
- (5) "MULTI-FAMILY" means a structure containing three or more dwelling units or a bed and breakfast dwelling that has six or more guest rooms.
- (6) "PLAN" is a specific design of a hotel, motel, or multi-family dwelling designed by the owner/developer, which is based on size, floor plan, method of construction, location arrangement and sizing of plumbing, mechanical or electrical equipment and systems therein in accordance with plans submitted to the Division of Housing.

- (7) "STRUCTURE" means a hotel, motel, or multi-family dwelling structure that shall comply with these rules and regulations.

### **Section 3: PLAN APPROVAL**

- (1) All owner/developers shall make application to the Division of Housing for plan approval prior to construction.
- (2) Applications shall be made on forms supplied by the Division of Housing:
- A. Submittal for approval of specifications and plans shall meet or exceed the minimum requirements as specified by the Division of Housing.
  - B. All applications submitted shall be stamped by an architect and/or engineer.
- (3) The Division of Housing will grant or deny approval within twenty (20) working days of the receipt of complete submittal and with the required number of copies.
- A. If a complete application, specifications and plans are not submitted within one hundred twenty days of the original application date, the application shall expire.
  - B. Expired applications must be resubmitted as new applications with new application forms and submittals.
- (4) Approved plans and specifications shall be evidenced by the stamp of approval of the Division of Housing. One approved copy shall be returned to the owner/developer and shall be retained at the job site. An additional approved copy shall be kept on file with the Division of Housing. Interim changes, additions, or deletions will not be acceptable without prior approval of the Division of Housing.

### **Section 4: APPLICATIONS**

- (1) All structures, as defined above, which are constructed or renovated in areas of the state with no local building codes must have a plan approved by the Division of Housing.
- (2) Plan approvals are granted to an owner/developer for a specific site location and are not transferable to other locations.

- (3) Approved copies of the specifications and plans shall be kept on the job site by the owner/developer for the purpose of construction and inspection by Division of Housing inspectors.
- (4) The granting of plan approvals shall not be construed to be a permit or approval of any violation of the provisions of these regulations. All structures shall be subject to field inspection. The approval of the plans shall not prevent the Division of Housing from requiring the correction of errors in the plans or the structure when in violation of these regulations.

## **Section 5: BUILDING PERMIT**

The Division of Housing will issue a building permit upon approval of application and plans. The owner/developer may begin construction upon receipt of the approved plans and building permit.

## **Section 6: INTERIM CHANGES**

- A. Interim changes shall be required where the owner/developer proposes a change in plumbing, heating, electrical, and/or fire life safety systems. Such changes shall become part of the approved plan unless the Division of Housing requires a total new design package. If determined a new design is necessary, the interim change shall be processed as a new application.
- B. When amendments to these regulations require changes to be made to an approved plan, the Division of Housing shall notify the owner/developer of the requirement and shall allow them reasonable time to submit revised plans for approval.

## **Section 7: ON-SITE INSPECTIONS**

- A. The Division of Housing shall conduct on-site inspections of all structures that are constructed or renovated in areas of the state with no local building codes. All structures shall be inspected per the requirements of the applicable codes listed in Schedule "B".

## **Section 8: EXPIRATION DATES**

- A. Each plan approval shall remain in force and effect as outlined in the applicable codes listed in Schedule "B"..

252  
253 **Section 9: POSTED STRUCTURES**  
254

255 A. Whenever an inspection reveals that a structure has a life threatening  
256 violation or is being constructed without Division of Housing approved  
257 plans, the Division of Housing shall post such a structure with a Stop Work  
258 Order.

259  
260 (1) When a structure is posted with a Stop Work Order, the Division of  
261 Housing will notify the owner/developer that the structure contains a  
262 violation(s).

263  
264 (a) No work shall be continued on a structure until all violations are  
265 corrected.

266  
267 (b) Within ten (10) working days, the owner/developer shall notify the  
268 Division of Housing of the action taken to correct the  
269 violation(s).

270  
271 (c) All structures that are corrected shall be reinspected to assure  
272 compliance with the codes and regulations.

273  
274 (B) Stop Work Orders shall be removed only by an authorized representative of  
275 the Division of Housing.  
276

277 **Section 10: CERTIFICATE OF OCCUPANCY**  
278

279 A Certificate of Occupancy shall be issued by the Division of Housing certifying that at the time  
280 of issuance the structure was built in compliance with the State Housing Board requirements.  
281

282 **Section 11: REVOCATION OF BUILDING PERMIT**  
283

284 A. The State Housing Board may revoke a Building Permit after notice and  
285 hearing pursuant to Section 24-4-104 & 24-4-105, C.R.S., whenever an  
286 owner/developer has violated any provision of these regulations or when a  
287 permit was granted in error, on the basis of incorrect information supplied  
288 by the applicant.

289  
290 B. Judicial review of Building Permit revocation actions shall be governed by  
291 Section 24-4-106, C.R.S.

292  
293 **Section 12: DENIAL OF BUILDING PERMIT**  
294

- 295           A.     The Division of Housing may deny an application for a Building Permit if  
296                   plans are in violation of Schedule “B”.  
297  
298           B.     The Division shall promptly notify the applicant of the denial, revocation or  
299                   condition imposed. The applicant may, within 60 days following such action,  
300                   request a hearing before the State Housing Board. If requested, a hearing shall  
301                   be conducted pursuant to Section 24-4-105, C.R.S. Thereafter, the final  
302                   decision of the State Housing Board shall be subject to judicial review in  
303                   accordance with Section 24-4-106, C.R.S.  
304

305 **Section 13: FEES**  
306

307 Fees will be assessed for each Multi-Family Structure in accordance with Schedule “A”, which is  
308 incorporated herein and made part of these Rules and Regulations by reference.  
309

310 **Section 14: IRREGULARITIES**  
311

312 Any and all irregularities in these Rules and Regulations shall not be justification for producing  
313 any Unit without proper inspections and in violation of the adopted construction codes.  
314  
315  
316  
317  
318

319 **ATTEST:**  
320  
321

322 \_\_\_\_\_  
323 Teresa Duran, Acting Director  
324 Colorado Division of Housing  
325

\_\_\_\_\_  
Theo Gregory, Chairperson  
Colorado State Housing Board

326 \_\_\_\_\_  
327 Date

\_\_\_\_\_  
Date



**SCHEDULE "A"**  
**FEE SCHEDULE**

All fees, except inspection fees, are due in advance and must accompany the application.  
Fees shall not be subject to refund.

1. Plan checking fees (maximum 3-sets):

Finished space	\$0.25 per sq. ft. (\$160 min.)
Unfinished space	\$0.10 per sq. ft.
2. Supplemental plan check fee (revisions, duplicate sets etc.): \$0.10 per sq. ft. (\$50 min.)  
Note: Fee for revisions to be calculated based on space revised.
3. Certificate of Occupancy (each separate structure): \$100.00
4. Waiver of fees for Government Assisted Housing; with State Housing Board concurrence, the Division of Housing may waive plan review fees for units to be subsidized under local, state or federal housing programs for low-income households.
5. Inspection fees:
  - A. On-site inspection fee: \$230.00 per inspector per trip .
  - C. Special inspection fee:  
In-State: \$50.00 per hour, per inspector plus trip expenses of travel, food, lodging, parking, car rental, etc. as allowed in state fiscal rules for per diem and travel.  
Out of-State: \$50.00 Hour/ per inspector plus trip expenses of travel, food, lodging, parking, car rental, etc. as allowed in state fiscal rules for per diem and travel.
  - D. Red Tag fee: \$250.00

361 **SCHEDULE "B"**  
362  
363

364 The State Housing Board adopts the following nationally recognized codes as the "Colorado  
365 Construction Safety Code For On-Site Construction Of Motels, Hotels, And Multi-Family  
366 Dwellings In Those Areas Of The State Where No Such Standards Exist".  
367  
368

369 **Factory-Built Housing Construction Code of the State of Colorado**  
370

371 Shall be:  
372

- 373 1. The International Building Code, 2006 Edition, published by the International Code  
374 Council, Inc.
- 375 2. The International Residential Code, 2006 Edition, published by the International Code  
376 Council, Inc.
- 377 3. The International Mechanical Code, 2006 Edition, published by the International Code  
378 Council, Inc.
- 379 4. The International Plumbing Code, 2006 Edition, published by the International Code  
380 Council, Inc.
- 381 5. The National Electric Code, 2008 Edition, published by the National Fire Protection  
382 Association, Inc.
- 383 6. The International Fuel Gas Code, 2006 Edition, published by the International Code  
384 Council, Inc.
- 385 7. The International Energy Conservation Code, 2006 Edition, published by the  
386 International Code Council, Inc. effective until June 30, 2010.
- 387 8. The International Energy Conservation Code, 2009 Edition, published by the  
388 International Code Council, Inc. effective July 1, 2010.  
389

390 Transition Period: Builders shall be permitted to use the construction codes in effect prior to the  
391 adoption of this resolution for a maximum of 90-days after this resolution takes effect.

**AMENDMENTS:**

The following amendments by addition, deletion, revision and exceptions are made:

**INTERNATIONAL BUILDING CODE:**

**Section 310, R-3, Add new sentence at the end:**

A single building or structure where 5 or less adults sleep at any time (commercial worker housing) may comply with the International Residential Code as a dwelling provided there is no mixed occupancy and there is permanently affixed signage in the immediate vicinity of sleeping rooms that states “No more than 5-adults may sleep at any time in this building”.

**Section 901.5.1 Add the following Section:**

**Special inspector required.** All fire protection systems required by this Chapter shall be inspected and approved by a special inspector. The inspector shall be an employee of the fire department having jurisdiction or another qualified individual with prior approval of the Colorado Division of Fire Safety. Inspections and approvals will be regulated under Chapter 17 of this Code.

**Section 907, Amend title to: “Single and multiple station alarms” and add subsections:**

**907.2.10.5 Carbon monoxide alarms.** In new construction, dwelling units within which fuel-fired appliances are installed or have an attached garage, shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area within 10 feet of the bedroom(s).

**907.2.10.5.1 Alarm requirements.** The required carbon monoxide alarms shall be clearly audible in all bedrooms over normal background noise levels with doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer’s installation instructions.

UL 2034 2008 Standard for Single and Multiple Station Carbon Monoxide Alarms

**907.2.10.6 Separate circuits prohibited.** Smoke and/or Carbon Monoxide alarms shall not be installed on a circuit dedicated only for Smoke and/or Carbon Monoxide alarms.

**Section 1507.1.1, Ice Dam Membrane Required is amended to read:**

Ice dam protection is required where stated throughout Section 1507 due to a history of ice forming along eaves in Colorado. Regardless of roof slope or material, when the snow load is above sixty five pounds per square foot (65lb./sq.ft.), roofing underlayment shall be two layers of Type 15 felt applied shingle fashion and solid mopped together with approved cementing material between the plies, or 40 mil listed self adhering roofing membrane and shall be installed extending from the eave up the roof to a point 8 feet 6 inches inside the exterior wall line of the building and shall extend continuously to a point 4 feet from any valley, cricket or similar construction junctions with roofs. The ice dam membrane shall extend up vertical construction junctions such as dormer walls a minimum of twelve (12) inches prior to the installation of flashing and roof covering.

**Section 1608.2, Ground Snow Load is amended to read:**

Roof Snow Load (Pf) design criteria shall be in accordance with the local jurisdiction requirements. The minimum roof snow load shall be 30 PSF and the allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

**Section 1609.1.1. Add the Following:**

Wind Load design criteria shall be in accordance with the local jurisdiction requirements. The minimum Wind load design criteria shall be 90 MPH, Exposure C, unless otherwise justified.

**Section 2111.1.1. New Fireplaces – Add the following section:**

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs.
2. Other approved gas or alcohol specific appliances.
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) as of the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

**INTERNATIONAL RESIDENTIAL CODE:**

**Section R105.2, Work exempt from permit. Building:**

**Item #1. Change 120 square feet to 200 square feet**

**TABLE R301.2(1 ) IS AMENDED TO READ:**

ROOF SNOW LOAD <sup>1</sup>	WIND SPEED (mph) <sup>1</sup>	SEISMIC DESIGN CATEGORY	Subject to Damage From				WINTER DESIGN TEMP <sup>2</sup>	ICE BARRIER UNDERLAY MENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX <sup>3</sup>
			WEATHER	FROST LINE DEPTH <sup>a</sup>	TERMITE	DECAY				
MIN. 30 psf	MIN. 90 mph, Exp. C	B	SEVERE	PER LOCAL	SLIGHT	SLIGHT	PER LOCAL	YES	PER LOCAL	PER LOCAL

<sup>(1)</sup>The roof snow load and wind speed shall be in accordance with the local jurisdiction requirements and shall not be less than the minimums stated. The allowable increase for snow duration shall not be used when the snow load is above 65 PSF.

<sup>(2)</sup>See Attachment A and verify with local jurisdiction..

<sup>(3)</sup>See the National Climatic Data Center data table “Air Freezing Index-USA Method (Base 32° Fahrenheit)” at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html).

**Table R301.5 – Live Loads**

...add footnote (j) to Decks, Exterior balconies, Fire escapes:

<sup>(j)</sup>When the snow load is above 65 psf, the minimum uniformly distributed live loads for exterior balconies, decks and fire escapes shall be as required for roof snow loads.

**Section 313, Amend title to: “Alarms” and add subsections:**

**R313.1.1 Carbon monoxide alarms.** In new construction, dwelling units within which fuel-fired appliances are installed or have an attached garage, shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area within 10 feet of the bedroom(s).

**R313.1.2 Alarm requirements.** The required carbon monoxide alarms shall be clearly audible in all bedrooms over normal background noise levels with doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.  
UL 2034 2008 Standard for Single and Multiple Station Carbon Monoxide Alarms

**R313.2 Add new sentence at the very end:**

Smoke and/or Carbon Monoxide alarms shall not be installed on a circuit dedicated only for Smoke and/or Carbon Monoxide alarms.

**Section R802.10 Wood trusses.**

...add new section:

**R802.10.6 Marking.** Each truss shall be legibly branded, marked, or otherwise have permanently affixed thereto the truss identification as shown on the truss design drawing located within two (2) feet of the peak of the truss on the face of the top chord.

**Section R905.1 – Roof Covering Application**

...add subsection:

**R905.1.1 Ice dam membrane required.** Ice dam protection is required, where stated throughout Section R905, due to a history of ice forming along eaves in Colorado. An ice dam protection underlayment that consists of at least two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet shall extend from the eave's edge to a point at least 24 inches inside the exterior wall line of the building. For snow loads above 65 psf, the ice dam membrane shall be extended from the eave to a point 8 feet 6 inches inside the exterior wall line, and shall extend continuously to a point 4 feet from any valley, cricket or similar construction junction with roofs. The ice dam membrane shall extend up vertical construction junctions such as dormer walls a minimum of twelve (12) inches prior to the installation of flashing and roof covering.

**Section R1004.4, G2406.2 exception 3 and 4, G2425.8 #7, G2445; Delete all and add:**

Unvented fuel fired room heaters are prohibited.

**Section R1004.5 – Fireplaces**

...add:

Every new fireplace shall have permanently installed one of the following:

1. Approved gas logs;
2. Other approved gas or alcohol specific appliances;
3. An approved fireplace insert meeting the most stringent emission standards for wood stoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission (AQCC) at the time of installation of the fireplace; or
4. A solid fuel burning device which is exempt from and not eligible for certification under U.S. Environmental Agency (U.S. EPA) regulations for wood stoves but which has been tested to demonstrate its emission performance is in accordance with criteria and procedures not less stringent than those required by the U.S. EPA and/or AQCC for wood stoves manufactured after July 1, 1990.

**Chapter 11 – ENERGY EFFICIENCY**

Replacement Date:

On July 1, 2010 the entire chapter is to be deleted and replaced with Chapter 11 of the 2009 International Residential Code.

...add new sentence:

**N1101.1 Scope.** An approved “Zero-Energy Building” is exempt from the provisions of this Chapter 11.

**Section M2001.1 - Installation**

...is amended to add the following sentence:

All rooms or spaces containing boilers shall be provided with a floor drain and trap primer.

**Section G2417.4.1 Test pressure**

...is amended as follows:

The test pressure to be used shall be not less than one and one half times the proposed maximum working pressure, but not less than 10 psig (69 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

**Electrical Sections**

Delete Chapters 33 through 42.

**INTERNATIONAL FUEL GAS CODE:**

**Section 303.3 Prohibited locations.**

...Add Item:

Number 6. LPG appliances. LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed. Delete Exception Numbers 3 and 4.

**Section 406.4.1 Test pressure.**

...amend to read:

The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 10 psig (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. Welded gas and medium pressure piping (14 inch water column or greater) shall be tested at a minimum of 60 psi.



**Section 601.1. Scope.** Add the following sentence:

Approved gas logs shall be installed in new solid fuel burning fireplaces when required by Sections 2111.1.1 of the International Building Code amended effective January 1, 2004.

**Section 621 Unvented room heaters.** Amend to read:

Unvented fuel fired room heaters are prohibited.

#### **INTERNATIONAL PLUMBING CODE:**

The following Appendix Chapters to the International Plumbing Code, 2006 Edition, are hereby adopted.

**Appendix Chapter D** – Degree Day and Design Temperatures for Cities in the United States.

**Appendix Chapter E** – Sizing of water piping systems.

No other appendix chapters are adopted.

#### **INTERNATIONAL MECHANICAL CODE:**

**Add the following Sections –**

##### **Section 303.3.1 LPG appliance.**

LPG appliances shall not be installed in a pit, basement or crawl space where unburned fuel may accumulate unless an approved sensing device is installed in conjunction with an automatic shut-off valve at the LPG tank.

##### **Section 903.1 General.** Add sentence:

Every new installation of a solid fuel-burning, vented decorative appliance or room heater shall meet the most stringent emission standards for woodstoves established under State statute and/or regulations promulgated by the State Air Quality Control Commission as of the time of installation of the appliance for room heater. (Effective January 1, 1991 – CC90-617.)

**Section 903.3**...is amended to read as follows:

Unvented gas log heaters are prohibited.

## **INTERNATIONAL ENERGY CONSERVATION CODE**

### **Section 101.2.1 Exempt Buildings.**

...add exemption:

**101.2.1.3 Zero-Energy Buildings.** Zero energy buildings are exempt from the provisions of the International Energy Conservation Code.

### **Section 202 – Definitions**

...add definition:

**ZERO-ENERGY BUILDING.** A building with zero net energy consumption and zero carbon emissions annually as certified by an approved annual energy use analysis.

## **NATIONAL ELECTRIC CODE:**

The following amendments by addition, deletion, revision and exceptions are made to the **National Electrical Code, 2008 Edition**, for use with all Factory Built units:

1. Article 406.8(C), (1) Shower or Bathroom space. Receptacle outlet shall not be installed in or within 30 inch (762 mm) of a shower or bathtub base.
2. Article 545, Manufactured Buildings, is amended to include: 545.14. Testing.
  - (A) Dielectric Strength Test. The wiring of each factory built unit shall be subjected to a 1-minute, 900-volt AC or 1273-volt DC dielectric strength test (with all switches closed) between live parts (including neutral) and the ground. Alternatively, the test shall be permitted to be performed at 1,080–volts AC or 1527–volts DC for 1 second. This test shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.
    - Exception 1: Listed fixtures or appliances shall not be required to withstand the dielectric strength test.
    - Exception 2: Units wired in Electrical Metallic Tubing or Rigid Metal Conduit.

(B) Continuity and Operational Tests and Polarity Checks. Each manufactured building shall be subjected to:

- (1) An electrical continuity test to ensure that all exposed electrically conductive parts are properly bonded;
- (2) An electrical operational test to demonstrate that all equipment, except water heaters and electric furnaces, is connected and in working order; and
- (3) Electrical polarity checks of permanently wired equipment and receptacle outlets to determine that connections have been properly made.

These tests shall be performed after branch circuits are complete and after wiring devices are installed and wiring properly terminated.

3. Article 320.23(A). Add a new sentence at the end:

Substantial guard strips shall be provided to protect wiring within three (3) feet of the marriage line where the attic is exposed and the roof is completed on-site, such as a hinged roof. See Article 320.23(A)

**ATTACHMENT "A"**  
**DEGREE DAYS AND DESIGN TEMPERATURES**  
**FOR COLORADO CITIES AND TOWNS**

Location		Heating Degree Days	Design Temperatures°F			Elevation (feet) above sea
			Winter	Summer		
			97½%	DB 2½%	WB 2½%	
1	Alamosa	8749	-16	82	61	7546
2	Aspen	9922	-1	81	59	7928
3	Boulder	5554	2*	91	63	5385
4	Buena Vista	8003	-1	83	58	7954
5	Burlington	6320	2	95	70	4165
6	Canon City	4987	8	90	64	5343
7	Cheyenne Wells	5925	1	97	70	4250
8	Colorado Springs	6415	2	88	62	6012
9	Cortez	6667	5	88	63	6177
10	Craig	8403	-14	86	61	6280
11	Creede	11375	-18	80	58	8842
12	Del Norte	7980	-4	81	60	7884
13	Delta	5927	6	95	62	4961
14	Denver	6020	1	91	63	5283
15	Dillon	11218	-16	77	58	9065
16	Dove Creek	7401	-6	86	63	6843
17	Durango	6911	4	87	63	6550
18	Eagle	8106	-11	87	62	6600
19	Estes Park	7944	-7	79	58	7525

Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2006 IPC appendix D).

Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)

\* Per Local. 8° per 1985 ASHRAE

**DEGREE DAYS AND DESIGN TEMPERATURES  
FOR COLORADO CITIES AND TOWNS**

		Location	Heating Degree Days	Design Temperatures°F			Elevation (feet) above sea
				Winter 97½%	Summer DB 2½%	WB 2½%	
771	20	Ft. Collins	6368	-4	91	63	5001
772	21	Ft. Morgan	6460	-5	92	65	4321
773	22	Fraser	9777	-22	76	58	8560
774	23	Glenwood Springs	7313	5	91	63	5823
775	24	Granby	9316	-	---	---	7935
776	25	Grand Junction	5548	7	94	63	4586
777	26	Greeley	6306	-5	94	64	4648
778	27	Gunnison	10516	-17	83	59	7664
779	28	Holyoke	6583	-2	97	69	3746
780	29	Idaho Springs	8094	0	81	59	7555
781	30	Julesburg	6447	-3	98	69	3469
782	31	Kit Carson	6372	-1	98	68	4284
783	32	Kremmling	10095	-19	85	59	7359
784	33	La Junta	5263	3	98	70	4066
785	34	Lamar	5414	0	98	71	3635
786	35	Last Chance	-----	-2	92	65	4790
787	36	Leadville	11500	-4	81	55	10,152
788	37	Limon	6961	0	91	65	5366
789	38	Longmont	6443	-2	91	64	4950
790	39	Meeker	8658	-6	87	61	6347
791	40	Montrose	6383	7	91	61	5830
792	41	Ouray	7639	7	83	59	4695

Data taken from Department of Energy (Rescheck 4.1.3), Climate Data published by Rocky Mountain Chapter ASHRAE, First Edition-Centennial 1976, 1985 ASHRAE Fundamentals Handbook (See 2006 IPC appendix D).

Degrees North Latitude may be obtained at [www.ncdc.noaa.gov/fpsf.html](http://www.ncdc.noaa.gov/fpsf.html)